

**Employability of Higher Education Institutions graduates:  
Exploring the influence of Entrepreneurship Education and  
Employability Skills Development Program Activities in Tanzania**

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# **Chapter 1**

## **Introduction**

### **1.1. An overview of the study**

This PhD thesis explores the topic of employability of new graduates. Specifically, it examines the influence of entrepreneurship education and engagement in Employability Skills Development Programme (ESDP) activities and their role in enhancing the employability skills and competencies of Higher Education Institutions (HEIs) graduates. Using triangulation, the thesis addresses the following questions: a) Do HEIs and particularly schools of education facilitate the development of enterprising personalities? And if so how? b) Do employers obtain employable graduates? And if so how? c) Do employability skills and entrepreneurship education impact the employability of new graduates? d) Can graduates' employability skills and competencies be enhanced through engagement in ESDP activities? And if so, what is the duration and number of these activities?

To address these questions, the first chapter summarizes the whole thesis, putting it in a broader perspective. The chapter links employability research and the role of HEIs in the process. This is further narrowed down to answer the specific research questions. The overview of authors, datasets and the current status of the thesis papers are summarized in Table 1.1. Some papers received contribution from different co-authors. Two papers have been accepted for publication in double blind peer reviewed international journals and one paper was presented at an International Conference on Cybernetics (Systems Dynamics and Modeling). The coming subsection presents the study background.

### **1.2 Background to the study**

The concept of employability has over time become a topic of interest among HEI's and, in particular, it is claimed that graduates do not possess the competencies required by end users (de la Harpe, Radloff, and Wyber, 2000; Morley, 2001; Kivinen and Silvennoinen, 2002; Johnson and Burden, 2003; Egulu, 2004). This is also reflected in the growing trend of unemployment among graduates worldwide (ILO, 2010; Tan and French-Arnold, 2012). Among the contributing factors is the curriculum that lacks innovative aspects that would enable graduates to acquire the competencies required by employers or the skills required to be self-employed (Kolawole and Arikpo, 2008). Increased enrolment in HEIs as well resulted to higher number of graduates

**Table 1.1. Overview of the Studies**

<b>Title of the paper</b>	<b>Author(s)</b>	<b>Dataset</b>	<b>Current status</b>
1. Factors influencing graduates' recruitment decisions: The case of Tanzanian corporate recruiters	Katherine Fulgence	Qualitative paper 22 Tanzania employers	Published in the <i>Academy of Educational Leadership Journal</i> .19(1):195-216.
2. Assessing the status of Entrepreneurship in Higher Education Institutions: the case of Tanzanian Schools of Education	Katherine Fulgence	Case study 52 respondents from 19 Tanzania HEIs	Published in <i>Education + Training Journal</i> , 57 (2): 239 – 258. DOI <a href="http://dx.doi.org/10.1108/ET-05-2013-0063">http://dx.doi.org/10.1108/ET-05-2013-0063</a> .
3. Employability skills and employability of Higher Education Institutions' graduates: Moderating effects of employability skills development programme's, field of study and study institutions	Katherine Fulgence Petra Moog	Hierarchical regression model A sample of 378 Tanzania graduates	Working paper
4. Employability skills and graduate employability: Moderating role of entrepreneurship education, socio-demographic factors and work experience	Katherine Fulgence Petra Moog	Hierarchical regression model A sample of 402 Tanzania graduates	Working paper
5. Using System Dynamics to Model and Analyze Graduate Employability Skills Development in Higher Education Institutions	Katherine Fulgence Petra Moog Nicole Zimmerman	Systems Dynamics and Modeling 22 Tanzania employers	Presented in Kywi Conference, 4-5 <sup>th</sup> July, 2012; Switzerland

acquiring a bachelor's degree (Bloom, Canning and Chan, 2006; Tan and French-Arnold, 2012).

Traditionally, graduates have been able to secure jobs, but globalization and the rapid development of technology have changed the nature of work, demanding more flexible workers. In this era therefore, training students for a career at the HEIs is not enough but rather students need to be prepared to work in the dynamic global environment (Evers, Rush and Berdrow, 1998; Billing, 2003; Sanz-Velasco and Saemundsson 2008). This includes developing among students the skills and important attributes as demanded by the labour market. These skills are important as they enable graduates to meet the demands of the new knowledge economy, which is characterized by flexible workers (Heath, Knez, and Camerer, 1993) who are the ones most desired by employers (Billing, 2003; Schmidt, 1999).

Empirical studies on employability reveal that entrepreneurship education and ESDPs have a significant influence on both forms of employment, business success and performance (Pfeffer, 1998; Harvey, 2000a; Florin, Lubatkin, and Schulze, 2003). Additionally, graduates with a higher level of employability, skills and competencies are more likely to engage in entrepreneurial activities and meet employers' demands in terms of productivity (Nauta, van Vianen, van der Heijden, van Dam and Willemsen, 2009). According to Holmgren, From, Olofsson, Karlsson, Snyder, and Sundtröm (2004) entrepreneurship education, besides being evident in promoting business start-ups, has also a wider market potential for the people possessing it. Indeed, entrepreneurial attitudes are not only required for an entrepreneurial career, but they are also highly demanded in other employment relationships (Frank, Korunka, Lueger, and Mugler, 2007).

The literature further shows that many attempts have been made by HEIs to address graduate employability, ranging from integrating the needed skills and attributes in the curriculum during course design (Yorke and Knight, 2004) to using appropriate teaching methods and integrated learning (Huq and Gilbert, 2013). ESDP activities covering such things as career management skills, voluntary activities and engagement in professional clubs have also been recognized as enhancing graduate employability (Bridgstock, 2009). Through these activities graduates acquire work experience that enhances their employability skills and employability prospects (Watts, 1999; Mason, Willian and Cranmer, 2009).

Despite this, ESDP activities are not explicitly stated in the curricula (Barrie, 2006), are not mandatory for all students (Kilasi, 2011) and are not assessed in some contexts, limiting their

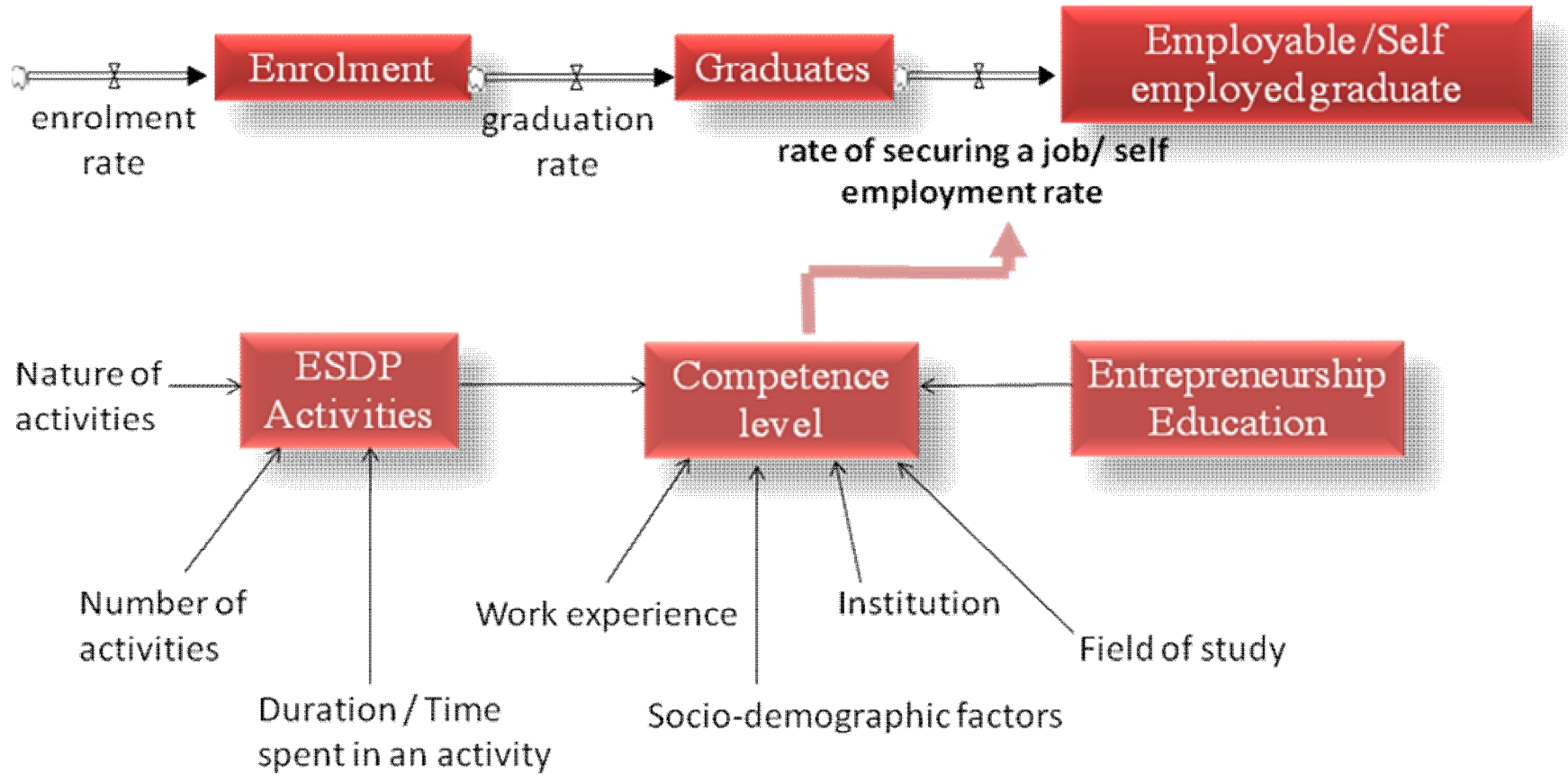
appeal to students (Saunders and Zuzel, 2010). In addition, entrepreneurship education courses do not reach many, especially non-business students, making it difficult to attain the intended outcomes (Gerba, 2012, Kilasi, 2011). The skills gap and the growing trend of unemployment among graduates may indicate that the objectives of entrepreneurship courses are yet to be realized (Karadisi, 2012; Kilasi, 2011). There is also limited scientific information on the role of structured ESDP and related activities in terms of time and duration in enhancing employability (Astin, 1999). This is the main objective of this thesis, as highlighted earlier in the research questions.

Overall, the five papers shown in Table 1.1 show that entrepreneurship education and ESDP activities are important for enhancing the employability of graduates. Figure 1.1 further summarizes diagrammatically how this thesis contributed to the current literature in relation to the study's objectives. The study also includes socio-demographic factors, in realization of their role in enhancing employability (Blasko, Brennan, Little and Shah, 2002). The study therefore develops a model which can facilitate the development of employability skills and attributes among graduates both within and outside the education system. Application of the model by HEIs can also increase the number of employable graduates.

The study recommends that further research studies should model and explore the structure of entrepreneurship courses in terms of duration, content and teaching/assessment techniques and how these could facilitate the employability of graduates. The model could be applied by HEIs to facilitate the teaching of entrepreneurship education and hence facilitate the process of producing employable graduates.

Building on this background, this introductory chapter first elaborates on the meaning and context of employability. The chapter reviews theoretical aspects of the study constructs and in particular entrepreneurship education and employability skills development models. This is followed by establishing the research gap based on the empirical studies. The last section presents the study's conclusion.

**Figure 1.1. The PhD project in a broader perspective**



**Source:** Own construction based on the reviewed literature

### **1.3 The concept of Employability and Employability Skills**

Employability refers to a new graduate possessing a set of skills and/or competencies that enable him or her to compete and secure employment, whether in formal employment, self-employment or any career (Harvey, 2003). Besides the skills, employability also includes various attributes and experiences obtained through higher level learning where prerequisite knowledge and skills at lower levels are important (Harvey, 2001). This thesis focuses on the skills and attributes in relation to the formal employment of HEIs graduates. Barrick and Bush (1987) state that employability comprises attributes besides technical skills (skills required for the accomplishment of a specific task) that makes employees an asset to employers. According to Hillage and Pollard (1998), employability is about being capable of getting and keeping fulfilling work. In a broader context, employability is the ability of an individual to attain and continuously secure employment sustainably within the labour market and thus realize one's potential. In operationalizing employability, Datta, Pellissery and Bino (2007) are of the view that becoming employed means having a job and being employable means possessing the qualities necessary to maintain a job, make a smooth transition from one workplace to another and progress in different workplaces. While employers view employability as the skills looked for in new employees, universities view employability as the skills and attributes demanded of their graduates to enable them to be more employable and more able to cope with change (Hager, 1996). Bridgstock (2009) categorized employability from two perspectives: the traditional or narrow view, which focuses on generic and discipline-specific skills and the initial employment outcomes, and the broader view of employability, which focuses on a more holistic approach that acknowledges personal characteristics (McQuaid and Lindsay, 2005), disciplinary differences (Barrie, 2004; 2006) and placing work in the context of an individual's life and the demands of the labour market (Rychen and Salganik, 2003). This study abides to the broader view of employability since it is the most relevant in the current knowledge based economy views also shared by Heath et al. (1993), Schmidt (1999) and Biling (2003).

Recently, the concept of employability has become more important due to the changing nature of the graduate labour market. This has been brought about by globalization and the rapid development of technology (Henry, Hill and Leitch, 2005). According to Henry et al. (2005), these changes bring with them opportunities at different levels. At the global level, opportunities are created from the reduction of trade barriers and advancements in technology. With

advancements in technology, organizational forms have changed from the division of labour to holistic organizations (Datta et al. 2007). Additionally, the nature of work has shifted from specialization to versatility (Datta, 2001). Employability in the context of holism entails increased demand for skilled workers who have the ability to integrate work with both endogenous (meeting customers' demands, exploring new geographical locations and initiating discovery processes) and exogenous characteristics of the firm (which involves being conscious of changes in the business environment and technology and the ability to absorb multiple cultures) (Datta et al. 2007).

At the organization level, the promise of employment security (stable employment relationship), a longstanding and central feature of the employment relationship is increasingly losing credibility (Cappelli, 1995). In this dynamic and competitive environment, employers demand workers with broader skills, who can manage labour market flexibility (Pfeifer, 2005; Brown, Green, Lauder and Sakamoto, 2001). According to Pfeifer (2005), there exist internal flexibility, which firms use over time or shift work to increase production in peak seasons, and functional flexibility whereby firms effectively use multi-skilled workers.

At an individual level, individuals are faced with a wide variety of employment options in a variety of contexts, including the ability to manage more than one job and take on more responsibility at work with the related stress. This demands adaptable workers who are able to productively integrate part-time and self-employment opportunities as the labour market and their personal circumstances require (Arnold, Silvester, Patterson, Cooper, Robertson and Burnes, 2005; Baruch, 2004).

With the remarkable changes in employment relations (Opengart and Short, 2002; Butterwick and Benjamin, 2006), careers are now developed horizontally and the commonly upward movements within one organization are no longer that certain. Work is no longer characterized by a finite and fixed set of tasks and so competencies or skills required for one job may not be sufficient over a long period (McMahon, Patton and Tatham, 2003). Individuals are therefore required to adapt to the rapidly changing work environment and labour market demands, including emerging technologies. As a result, employability skills are needed to enable graduates to cope with the current turbulent changes in the labour market (Henry et al. 2005). It is important therefore for university graduates to possess higher order skills. The skills will



enable them to continuously recognize opportunities aiming at enhancing their employability prospects and integrate the same in their life aspects.

### **1.3.1 Employability skills**

One aspect of employability is the possession of employability skills. Employability skills are those basic skills necessary for getting, keeping and doing well in a job. According to (Hillage and Pollard, 1998), employability skills comprise knowledge (i.e. what an individual knows, which can be subject knowledge), skills (what is done with the knowledge) and attitudes (how it is done). Subject knowledge is perceived to be an in-depth study and possessing an understanding of a discipline, as well as the skills and personal attributes necessary to perform adequately at the graduate level (Knight and Yorke, 2004; Saunders and Zuzel, 2010; Lorraine and Sewell, 2007).

In some cases, knowledge and understanding of a specific subject are desirable. In other instances this is not the case. A study by Harvey and Green (1994) for example indicates that UK employers do not place much importance on study disciplines and in particular subject knowledge. Reflecting the related statistics, over a third (38 percent) of the employers indicated that subject knowledge was of little or no importance in relation to their satisfaction with graduates. At that time, this caused considerable concern but over time the trend became more readily accepted (Harvey, 2000b; Bennet, Dune and Care, 1999).

Besides having different connotations, such as graduate attributes or skills, transferable skills, key competencies, soft skills and generic skills (UWA, 1996; Lees, 2002; Shukran and Munir, 2011; Andrews and Higson, 2008), the term preferred by industry (which also this study abides by) is employability skills (Allen Consulting Group report, 2006). There is also a measure of agreement amongst different stakeholders that the key dimensions of employability skills are lifelong learning, preparing students for an uncertain future, possessing the core skills and competencies needed to participate in the workforce and the need to promote an active and engaged citizenry (Barrie, 2004; Treleavan and Voola, 2008). Employability skills are therefore important for students as they enable them to meet the demands of different occupations as demanded by the labour market after graduation. This study categorizes employability skills into five broad categories; core skills (job specific skills and in particular technical and academic ones) (Yorke and Knight, 2004; Gardner et al. 2005; Gray, 2010), personal qualities (fixed self –

beliefs that do not change over time and are incremental) (SCANS, 1991), initiative and enterprise (ability to initiate new things and use relevant networks to realize them) (CBI, 2012), process skills (ability to use technology, colleagues' and own potential to process and manage information, work and people) (Hager and Hodgkinson, 2009; Wellman, 2010) and attitude (a 'can-do' approach and a readiness to take part and contribute in an endeavor) (CBI, 2012). The skills are also categorized as hard skills (subject understanding) and soft skills (skills transferable across occupations and working environment) (see Saterfield and McLarty, 1995; Andrews and Higson, 2008) and both categorizations have been reflected in different chapters of this thesis.

Table 1.2 summarizes various aspects of employability skills based on the five broad categories. Besides different categories of skills and related attributes, Rychen and Salganik (2001) is of the view that employability skills are a significant subset of a broader set of generic skills. Rychen and Salganik (ibid) further identify four major conceptual elements in generic competencies, stating that they are, first, multi-functional, meaning that they are needed to achieve different goals and solve multiple problems in different contexts. Second, they are relevant across many fields and in all walks of life. Third, they involve higher order of mental processes such as critical thinking (reflective approach to life), reasoning (synthesizing information to reach conclusions) and decision making (the process of choosing among available alternatives). Finally, employability skills are multi-dimensional, meaning that they are composed of know-how, an analytical mindset, cultural aspects and common sense.

Another key aspect of employability is the ability to demonstrate employability skills and present them to the market in an accessible way once a job is identified (Hillage and Pollard, 1998). This includes the presentation of a CV, showing an individual's record of achievements and work experience, qualifications (both academic and vocational), the provision of references and testimonies, as well as the ability to perform well in an interview. These will be further discussed in this thesis.

**Table 1.2: Literature on the composition of Employability skills and related attributes**

Employability category	Support from literature	Range of related competencies
Personal qualities	Robinson (2000), Yorke and Knight (2004), Saunders and Zuzel (2010), SCANS (1991), Kearns (2001), Lorraine and Sewell (2007),	Personal qualities comprise of self-awareness or self-management, self-confidence, emotional intelligence, adaptability, willingness to learn and reflectiveness (Yorke and Knight, 2004).
Core skills	Lorraine and Sewell (2007), Yorke and Knight (2004), Robinson (2000), Saunders and Zuzel (2010), CBI (2012), DEST (2006)	As adopted from Yorke and Knight (2004, pg 27), core skills include; reading effectiveness, numeracy, information retrieval, language skills, self-management, critical analysis, listening, written communication, oral presentations, explaining, global awareness. Other core skills attributes include business acumen, attention to detail and reading effectiveness (Zapalska, 1997; Tixier, 1996; Yorke and Knight, 2004).
Process skills	Yorke and Knight (2004), DEST (2002; 2006), SCANS (1991) Yosuf et al. (2012), CBI (2012)	Process skills include technology or computer literacy, planning, applying subject understanding, (transferable skills), problem solving, decision making and teamwork (DEST, 2002)
Initiative and Enterprise	Kearns (2001), DEST (2002), Yosuf et al. (2012), Precision (2006)	According to Precision (2006) pg. 12, initiative and enterprise includes; change management, identifying opportunities, being creative, generating a range of options, translating ideas into action reflecting on one's own practice for improvement, engaging colleagues and adapting to new situations.
Positive attitude	DEST (2002), CBI (2012)	Positive attitude include attributes such as managing traits (spontaneous reaction to situations), self motivation, openness to change, ability to cope with work pressure, taking responsibility for own action and time management.

### **1.3.2 The context of Employability and HEIs**

HEIs develop human capital and contribute to national wealth by equipping students with the skills necessary for employment (Atkins, 1999; Billing, 2003; Candy and Crebert, 1991; Evers et al. 1998). Studies also indicate higher returns in terms of better jobs and earnings both in the short and long term for individuals with a bachelor degree (Elias and Purcell 2004; Brennan, Johnston, Little, Shah and Woodley, 2001). Traditionally, universities had major two functions: to prepare the elite to govern the nation and to provide an institutional basis for research into all forms of knowledge (Jarvis, 2010). Brown (2003) and Brynin (2002) however provide some evidence that the traditional graduate labour market has become more competitive and as Elias and Purcell (2004) comment, graduates do a wider range of jobs than graduates in the past given the advancements in technology and the restructuring of the economy.

Given the current state of the labour market, HEIs now need to focus on employability and prepare students for work (King, 2003), because this is demanded by the government, industries, higher education agencies and researchers (Mason et al. 2009). Employability is also of immediate concern to students. This is because by attending university, students not only acquire in depth subject knowledge but also their employment prospects is enhanced (King, 2003). In this context, many countries worldwide have been paying increased attention to skills development in higher education, since these prepare graduates for the world of work (Maharasoia and Hay, 2001; Tran and Swierczek, 2009).

Besides identifying specific employability skills, aspects such as university programmes and increased enrollment in HEIs are posing a serious threat in enhancing graduates' employability (Kahn, 2010; Tan and French-Arnold, 2012). In particular, some programmes are more linked to specific occupations and to the acquisition of specific skills while others are less likely in this regard (see Blasko et al. 2002). Additionally and according to Tan and French-Arnold (2012), there is a growing trend towards unemployed youth with this caused by financial crisis and the economic recession happened in 2008. According to Global Employment Trends (ILO, 2012) for example, there were 74.8 million unemployed youths in 2011, an increase of more than 4 million since 2007. Indeed, high unemployment among recent HEIs graduates has attracted considerable attention among policy makers and the public at large and there is also growing concern that recent graduates are finding themselves either underemployed (working in jobs that do not require a college degree) (Fogg and Harrington, 2011) or overeducated (where

graduates are employed in non-graduate jobs) (Green and Zhu 2010; Felstead et al. 2013). In other instances, graduates take jobs not related to their field of study, also referred to as hetero-employment (Kostoglou, Vasilakopoulos and Zafeiropoulos, 2007b; Tan and French-Arnold, 2012). A longitudinal study by Elias and Purcell (2004) for example reveals that there is a growing trend towards some occupations (majority of which were not occupied by graduates) requiring a higher education skills and knowledge. Such occupations provide reliable employment opportunities for graduates with mostly found in the hospitality industry (such as leisure and hotel managers) as well as in the nursing and midwives fields of study.

As Kahn (2010) comments, a poor economy in terms of job opportunities affects educational attainment and so if fewer jobs are available, the opportunity cost of staying in school is lower. Thus, higher enrolment rate should be expected in poor economy as graduates return to school given the attached opportunity cost. To substantiate this, UNESCO statistics for example indicate that from 1991 to 2008, enrolment in HEIs increased more than twice from 68 million to 151 million (Tan and French-Arnold, 2012). Also, the number of students gaining a bachelor's degree has grown consistently since the early 1980s from 1.2 million to 1.5 million (Davis and Bauman, 2011). Although the enrolment rate in HEI's in Sub-Saharan Africa is by far the lowest in the world, the gross enrolment ratio has increased in the past 40 years from 1 percent in 1965 and it still stands at only 5 percent (Bloom, Canning and Chan, 2006). Recent report by McCowan (2014) shows that, the enrolment rate is now only seven per cent over this period compared to 29 per cent worldwide. Although the most recent rate of HEI enrolment in the African region is not well reflected, the region's enrolment ratio in 2006 was in the same range as that of developed regions 40 years ago (Bloom et al, 2006).

Although most African countries have a low higher education enrolment ratio, they have experienced a rapid increase in the actual number of students enrolled in higher education (Mohamedbhai, 2008). In Tanzania, for example, where this study was carried out, the cumulative number of students enrolled increased dramatically from 31,674 in 2003/2004 to 135,376 (327 percent) in 2010/2011 (TCU, 2009; 2012). Specifically, the number of students enrolled increased from less than 5,000 in 1990s to 35,133 students in 2008/2009 and 48,690 in 2010/2011. The number declined to 40,773 applicants in 2011/2012 and in 2012/2013 there were only 38,617 students (TCU, 2009; 2012). The number of HEIs has also increased dramatically. While there was 1 public university in Tanzania in 1961, the number grew to 40 (11 public and

29 private) universities and university colleges in 2011, with most colleges acquiring university status from 2000 (TCU, 2012). The reason for the increase in enrolment is the increase in access to Higher Education Student Loans Board (HELSB) funds as well as the increased number of established Higher Learning Institutions (TCU, 2012) enabling more access to education by the public.

Though increased enrolment in Tanzanian HEIs, including universities, is in line with government policy documents' (URT, 1995, URT, 2003) goal of attaining 90,000 students enrolled by 2010, enrolment has exceeded the government's National Strategy for Growth and Poverty Reduction (NSGPR) target by 132 percent (URT, 2010). According to URT (2010), the number of graduates released into the labour market goes beyond 30,000 and less than a quarter are absorbed into the government sector. The rest are absorbed by the private sector or the unemployment category.

Despite the major quantitative achievement in terms of enrolment of students in HEI's, their role in preparing graduates to meet the demands of the labour market is yet to be realized (Karadisi, 2012). Several factors come into play, ranging from imbalances in the world economy brought about by globalization and technological advancements to factors within HEIs, such as university curricula, the role of academic staff in implementing their roles and students' engagement in ESDPs, including extra-curricular activities. A study by Kyaruzi (2012) to assess the effects of increased enrolment on the provision of quality teacher education reveals that increased enrolment impacts negatively the quality of graduate outputs and in particular leads to huge classes, limiting the development of graduates' employability skills due to the reduced number of seminar presentations. The study recommends that HEIs should establish whether increased student enrolment is having a positive or a negative impact on an institution's endeavors to carry out its prime responsibilities and the need to have a different orientation to address the employability situation of graduates.

### **1.3.3 Employability development models**

Several alternative models have been developed by researchers to obtain an understanding of the parties involved in HEIs and their role in enhancing the employability of graduates (Harvey and Moorey, 2002; Knight and Yorke, 2004; Lorraine and Sewell, 2007). The models show that employability can be realized through the interaction of various factors; for instance education

and employability development opportunities, such as extra-curricular activities (Harvey and Morey, 2002), socio-demographic factors (Blasko, Brennan, Little and Shah, 2002) and external economic factors, such as the availability of job opportunities in the labour market (Kahn, 2010). Other models such as those by Harvey and Morey (2002) and Lees (2002) depict the many facets of employability development and demonstrate that employability is clearly a process rather than a product of education. Indeed, Atkins (1999) is of the view that employability should be equated with lifelong learning. These models are relevant since they form the basis on which to build the study variables and the way in which they are used in this thesis is discussed.

The simplest model of employability (the magic bullet model), advocated by Harvey (2002), assumes that students are given employability and the related skills during the studying process which lead them to become employable. The model, however, does not reflect other important personal characteristics of students, such as socio-demographic factors (age, gender, ethnicity and personality traits), all of which are known to influence employability (Blasko et al. 2002). In relation to this thesis, the socio-demographic factors and how they influence employability are assessed in chapter 5 using the framework applied by Blasko et al. (2002). Chapter 5 was also built on situational analysis studies on the subject as obtained from employers and HEIs' (thesis chapters 2 and 3 respectively).

Knight and Yorke (2004, pg.150) developed a four-stage model abbreviated (USEM), comprising Understanding (of appropriate subject knowledge, apprehension and applicability); Skills (subject-specific and generic abilities); Efficacy beliefs (awareness and understanding of oneself and one's abilities) and Meta-cognition (the ability to reflect on and regulate one's own learning and behaviour). The model defines graduate employability as the possession of understanding, skills and the personal attributes needed to perform adequately at the graduate level. The thesis adopts the skills and attributes used in the USEM model to develop the study employability skills instrument (Knight and Yorke, 2004, pg. 27-28), with some modifications to reflect the Tanzanian context.

Lorraine and Sewell (2007, pg. 280) developed a model that illustrates the essential components of employability as well as the direction of the interaction between the various elements in enhancing employability skills and attributes. According to them, employability consists of 3 higher-level components; self-efficacy, self-confidence and self-esteem; and 5 lower-level components; **Career** development and learning, **Experience** (Work and Life),

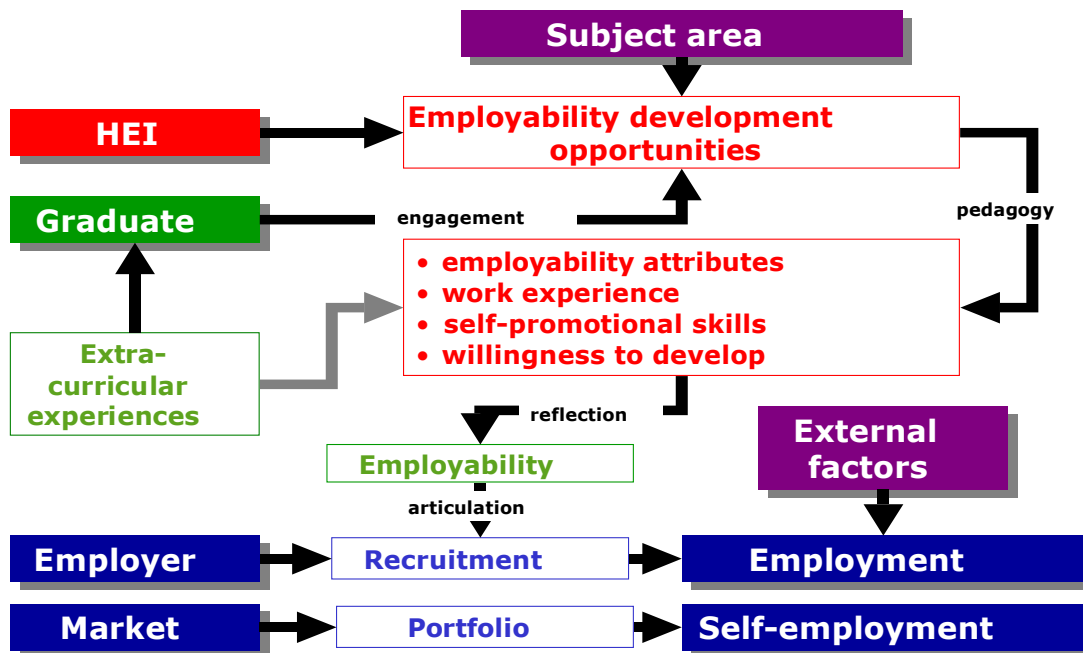
**Degree subject knowledge, understanding and skills, Generic skills and Emotional intelligence.** The model is abbreviated “Career EDGE” reflecting the bold characters. The model suggests that providing students with opportunities to access and develop everything on the lower tier and essentially reflecting on and evaluating these experiences will result in the development of higher-level components, which are the crucial link to employability. In relation to how the model is applied in this thesis, it focuses on the lower-level components, in particular work experience and engagement in career development learning, leading to the attainment of the higher-level components.

A more comprehensive model of enhancing graduate employability is the one developed by Harvey and Morey (2002) that defines employability in relation to how individuals engage with opportunities, and reflect on and articulate their skills and experience. As shown in Figure 1.2, the model consists of three parts, employability development opportunities, the three processes involved in facilitating the activities and the parties involved. For the output to be realized, it is important to link all the factors together with the parties involved in the process. Employability development opportunities and activities consist of support offered centrally by the university including career management skills, guidance and experiences both practical and theoretical as mainstreamed in the curriculum. Career management skills refer to a range of competencies that enable a person to gather and organize self, educational and occupational information and thus manage effectively careers, life transitions and the related learnings (Watts, 1999). According to Harvey (2001) and McQuaid and Lindsay (2005) career management skills are essential to employability in that they facilitate in determining the appropriate time as to when employability and discipline-specific skills are learned, articulated and used (for example during application and job search).

The three processes consist of a pedagogy that encourages the development of skills and attributes, as well as self-reflection by students. Reflections by students include the willingness to learn, to reflect on their learning and to articulate their experiences and abilities. A study by Moy (1999), for example, establishes that there is a positive relationship between the development of generic skills by learners and teaching pedagogies. In particular, teaching methods such as the learner-centred approach (which enables for the integration between thinking and actions relevant and meaningful to learners to occur); adult learning principles (that encourage problem-based learning, learner reflection, evaluation and articulation of learning



Figure 1.2. A model of Graduate Employability Development



Source: Adapted from Harvey and Morey (2002, pg. 18.)

experiences) and the use of multiple roles by teachers (such as being a mentor, coach, facilitator and evaluator) positively enhances the development of generic skills. Indeed, good learning, teaching, assessment and curriculum practices foster achievements valued in the labour market (Knight and Yorke, 2004).

The main parties involved are HEIs, students and employers. HEIs provide employability development opportunities obtained through the core curricula and activities external to it such as career guidance and management skills. In this thesis, all these employability development opportunities and activities are grouped under ESDPs views also supported by Brown (2006). Employers can participate in curriculum design and offer work placements to facilitate the development of skills and attributes. For example, a study by the Higher Education Funding Council for England (HEFCE) (2000) established that structured work experience and employers' involvement in the design and delivery of degree courses has a positive effects on graduates' ability to find graduate-level jobs within six months of graduation. Indeed, involvement of students in the employability development opportunities enhances their skills and thus enabling them to meet employers' expectations during recruitment for formal employment and self-employment for those who prefer it as a career.

The model further shows that employability development opportunities, to some extent, are affected by the subject the graduate studied and that some degree programmes tend to be more active in promoting graduates' employability than others. For the output to be realized, it is important to link all the factors together with the parties involved in the processes. Based on this model and in relation to this study, chapter four explores the role of field of study and study institutions in enhancing employability and graduates' skills.

#### **1.4 Employability and Entrepreneurship Education**

The role of entrepreneurship education in enhancing employability and developing the skills and attributes of graduates is well established (Gibb, 2002; Huq and Gilbert, 2013). Literature on entrepreneurship education shows the emergence of entrepreneurship as a discipline (Chell, 2001; Steyaert and Hjorth, 2003; Welsch, 2004). Indeed and world wide, the number of introduced entrepreneurship education courses in different fields of study have increased significantly (see Hynes 1996, Katz, 2003, Kabongo and Okpara, 2010; Gerba, 2012 ) in realization of its impact on entrepreneurial skills, attitudes and intentions (Peterman and Kennedy, 2003; Matlay, 2008; Kolvereid and Moen 1997; Oosterbeek, van Praag and Ijsselstein 2010). The literature further shows that entrepreneurial values, attitudes, knowledge and skills enable students to cope with the current turbulent changes in the labour market as they provide an enriching educational experience that ensures graduates' success in the labour market (Charney and Libecap 2000).

##### **1.4.1 The concept of Entrepreneurship and Entrepreneurship Education**

What is being debated in the field of entrepreneurship is how the term entrepreneurship should be defined. Two issues can be highlighted on this. First is the interdisciplinary nature of the field of entrepreneurship, whereby each discipline views entrepreneurship from its own perspective without understanding the approaches used in other disciplines (Henry et al. 2005). Second, the term entrepreneurship has different meanings in different settings, with the result that the conception of entrepreneurship differs between individuals, sectors, countries and systems, which in turn influences the different learning trajectories of entrepreneurship education and training (Kirby, 2004). Entrepreneurship is about getting things done or changing how they are done. Robbins and Coulter (1999) define entrepreneurship as a process by which people through

innovation, identify and realize new opportunities that meet their needs regardless of the resources they possessed at the moment. While some scholars equate entrepreneurship with business creation, Surlmont (2007) defines entrepreneurship as a set of attitudes, skills, capabilities and competencies that can be applied to any area of life and work and not just to business. The definition allows people from any discipline to engage in entrepreneurial activities in existing organizations (intrapreneurship), in business creation (business entrepreneurship) and in the society (social entrepreneurship).

Despite other definitions of entrepreneurship and entrepreneurship education such as those by EU (2011) and Linan and Chen (2009), this thesis is in line with the views of Fayolle and Klandt (2006) that entrepreneurship can be seen from three different angles; as a matter of culture or state of mind, as a matter of behaviour and as a matter of creating specific situations. Education focusing on entrepreneurship as a matter of culture or state of mind focuses on the values, beliefs and attitudes associated with entrepreneurship (like entrepreneurial mindset, spirit or identity). Education focusing on behaviour deals with specific skills in relation to entrepreneurial behaviour, like seizing opportunities, making decisions and developing social skills pg. 2. Education focusing on creating specific situations deals with the creation of new firms and entrepreneurial situations (like individual ventures and corporate venturing).

#### **1.4.2 Theoretical background and whether Entrepreneurship can be taught**

Research findings indicate that entrepreneurship can be taught to some extent. Evidence further shows that education programmes facilitate the development of entrepreneurship skills and the related impact both at the individual and societal levels (Gorman, Hanlon and King, 1997). Psychological theories view entrepreneurial behaviour as a function of inborn qualities and that individuals with certain personality traits (great need to achieve, strong sense of independence, internal locus of control and moderate risk-taking propensity) could be more associated with entrepreneurial activities (McClelland, 1961). In this context entrepreneurs have distinct features, mindset and vision, which cannot be transferred from one individual to another. This line of thinking justifies the reasoning that entrepreneurial qualities are inborn and thus little can be achieved in teaching or training someone in entrepreneurship.

In contrary to this thinking, findings support the idea that psychological attributes associated with entrepreneurship such as the need for achievement, risk taking and locus of

control can be developed through education (Vesper, 1990; Gorman et al. 1997). Sociological theories are therefore of the view that entrepreneurial attitudes, intentions and behaviour are socially generated and sustained through both formal and informal socializing agents such as family, school, community and work organizations (Gibb, 1993). While some individuals have a greater propensity to exhibit entrepreneurial behaviour and/or learn certain things faster than others (e.g. drawing, singing, maths), they are not born with these specific competencies, they only acquire what exists around them once they are born. Indeed, all behaviours and competencies can be developed and learned at varying levels, and this may differ from one individual to another (Olomi, 2009). Additionally and according to Gibb (1993) the socializing agents can facilitate or hinder the development of entrepreneurial qualities among individuals in different social contexts.

Another debate is the wisdom of teaching students to become entrepreneurs in the light of current teaching pedagogy (Adcroft et al. 2004; Fiet, 2001; Sexton and Upton, 1987; Hynes, 1996). While some advocate for creativity, inventiveness and innovation in the teaching process (Alvareiz and Busenitz 2001; Lee and Wong 2004; Binks and Mahons 2006) others are of the view that entrepreneurship cannot be taught, but rather is learned and facilitated by experiential and action-oriented learning approaches (Kolb, 1984; Birch 2004). For an entrepreneurship education programme to be successful, it is important to manage effectively the teachable skills and identify the best match between students' learning needs and teaching techniques (Lee and Wong, 2007). To supplement the discussion, Anderson and Jack (2008, pg. 269) comment that teaching entrepreneurship needs a combination of the creative and artistic talents, applied technician knowledge and the professional knowhow. Indeed, entrepreneurial education programme taught by engaging the mental processes and the appropriate pedagogical techniques can develop entrepreneurs qualities such as self-esteem and self-efficacy (Krueger and Brazeal, 1994). This thesis is of the view that using appropriate pedagogy, entrepreneurship knowledge and skills can be enhanced through education.

### **1.5 Empirical studies on employability and ESDPs**

Empirical studies on employability and the related skills focus mostly on the gap between graduates' skills and the demands of the labour market. Weligamage and Siengthai (2003) conducted a study to identify factors that affect Sri Lankan graduates' job expectations and

employers' needs. The findings reveal that graduates lack knowledge about labour market realities, especially the key skills sought by employers. The study proposed that HEI stakeholders should collaborate to address the skills gap. Another study by Shukran, Wok, Majid and Noor, (2004) indicates that HEI students lack relevant **Knowledge, Skills, Abilities and Other** desirable work characteristics (KSAOs). The study proposed that strategies were needed to develop and enhance the soft skills and work-related competencies of HEI students, either by embedding them in university curricula, or introducing a special employment programme, a view shared by Shukran and Munir (2011).

A study by Aliaz (2007) in the Malaysian context reveals that unemployed graduates lack many of the soft skills, such as communication skills, including the poor command of English, and work experience. Other factors that influence the employability of graduates as enlisted in the same study include academic achievement, self-confidence and field of study. Another study by Shukran et al. (2004) assessing the lack of skills by HEI graduates found that the quality of graduates is low if it is characterized by inadequacy of the required competencies such as self-confidence, soft skills, proficiency in English and a positive attitude to work.

A study by Little (2003) presented employability from an international perspective by assessing competencies possessed by European and Japanese graduates. In this study, the ability to learn ranked first in Europe, especially in the UK. Other studies on employability focused on the importance of employability skills as ranked by employers. Archer and Davison (2008), for example, found that 86 percent of the study's respondents (UK employers) regarded communication skills as the most important, followed by soft skills (70 percent) and overseas experience (65 percent). CBI (2012) found that almost a third of UK employers (30 percent) have problems with graduates' generic employability skills, such as teamwork, communication and problem solving. Employers are also disappointed by graduates' attitude to work (25 percent), self-management (33 percent), business awareness (44 percent) and foreign language skills (49 percent).

Other studies include those by Wye and Liew (2005) in the Malaysian context using a framework developed by UWA (1996). The study concluded that the five skills with the greatest difference between the Development Index and Importance Index from the students' point of view were; 1) English oral communication, 2) master of information, communication and

technology, 3) English written communication, 4) ability to handle risk; and 5) individuals' ability to think creatively and innovatively.

In the African context, a study by Kolawole and Arikpo (2008) examining predictors of employment efforts among unemployed Nigerian graduates found that the inappropriate curriculum was the major factor. The curriculum does not change with changes in the labour market. As a result, graduates are claimed not to possess adequate competencies needed by employers or the skill to employ themselves. The study further establishes that personal qualities, individual search behaviour, gender and the field of study exert difficulties among graduates in finding jobs (see also Blasko et al. 2002 as regards the field of study). The study proposed for the need to conduct further research first, to study the interaction between these variables and employment efforts; and second to establish how the HEIs' curricula can accommodate variables that influence graduates' employment search behaviour. Other studies include those by Panagiotakopoulos (2012) in Ghana, indicating that graduates do not possess a range of skills as demanded by world of work. The paper argues for an immediate need for policy makers to develop a national policy on key skills taught in HEIs in order to help students secure employment and to meet the skill needs of domestic firms.

In the Tanzanian context, limited studies have focused on the role of HEIs in enhancing the employability of graduates. A tracer study by Kaijage (1997) however determined the extent to which the university programmes positively prepare graduates for the job market. In particular, the study established the level and type of technical knowledge and skills required of graduates in the job market and whether they are reflected on the faculty of commerce and management curriculum. The findings show that the university programme and the skills imparted were relevant to the labour market. It was however important to include courses aimed at addressing the private sector emerging needs. The University of Dar es Salaam Entrepreneurship centre was established in 1999 in response to the identified research gap.

Karadisi (2012) conducted a study to assess how effective Dar es Salaam colleges and universities in Tanzania are in imparting employability skills to their graduates. The study findings (77 percent of respondents) reveal that the employability skills imparted by universities and colleges are not effective in developing learning either for entrepreneurship or for employment in corporate firms. The findings further show that employability is not only about training or providing additional skills to gain employment, but it is also about how the higher

education system, through its universities, develops critical, reflective and empowered graduates who are needed and valued by employers. The study recommends first, there should be a closer relationship between universities/colleges and employers when it comes to developing curricula that meet the needs of industries and for enhancing the dual training system for graduates (hands-on experience). Second, HEIs should employ, in most cases, experiential learning to facilitate learning for entrepreneurship. The methods not only enable graduates acquire entrepreneurship skills, but also develop positive attitude, the features that are important in the workplace.

Apart from policy papers that suggest how HEIs should be set up in relation to addressing the employability of graduates (Little, 2003), there is little scientific knowledge on what constitutes an effective employability skills development programme (Little, 2004) and how entrepreneurship education can facilitate the development of employability and the related skills and or attributes. The empirical studies (as highlighted) focus more on the skills gap between HEIs' output and the demands of the labour market. The studies do not offer a scientific explanation on how HEIs should address employability in terms of developing skills and attributes. This PhD thesis departs from existing skills gap research findings and explores the topic of the employability of graduates using a different approach.

Specifically the study examines the influence of entrepreneurship education and engagement in ESDP activities on employability and personal development of the related skills. The study has five papers with each forming its own chapter. This introductory chapter provides the background to the study, the study concepts, the theoretical background and the linkage to all the thesis papers. As summarized in Table 1, the first two papers (chapters two and three) provide the situation analysis of employability and entrepreneurship education from employers' and HEIs' points of view. For instance, Chapter two (paper one) explores from employers point of view the factors that influence new graduates' recruitment decisions in the Tanzanian context. Chapter three (paper two) assesses the status of the taught entrepreneurship courses in HEIs in the schools of education. Chapters four and five (papers three and four) focus on the influence of entrepreneurship education and ESDP activities on developing employability skills and enhancing the employability of graduates. Besides identifying the activities that students need to engage in, chapter six (paper five) provides an effective model showing how the employability skills of graduates can be developed in terms of duration and number of activities in order to enhance their employability. The study recommends that ESDP activities in HEIs should be

mandatory and their outcome assessed. This undertaking will enable students to seriously engage in the activities views also supported by Saunders and Zuzel (2010) and Tan and French-Arnold (2012). The study also proposes that further research is conducted that can model entrepreneurship education course characteristics in terms of course duration and the number of courses, given the relevance of entrepreneurship education in the current labour market. There is also a need for incubation programmes that can nurture the development of new and innovative business ideas among graduates. This will not only enhance the employability of graduates but also will enable them to create self employment and employment opportunities for others.

## **1.6 Conclusion**

The five papers contribute to the current literature on the role of ESDP activities and entrepreneurship education in enhancing the employability and employability skills of new graduates. The findings provide a broader understanding of ESDP activities and how they influence the employability of graduates in this era. While each paper responds to the study's objectives, further research could inform employability development models and the labour market based on the study's findings.



## Chapter 2

### **Factors influencing graduates' recruitment decisions: The case of Tanzanian corporate recruiters**

#### **2.1 Introduction**

Recruitment is one of the major functions of an organizations. According to Richardson (1989), recruitment impacts the performance of an organization and hence acquiring and retaining high-quality talent is critical to an organization's success. Changes in labour market factors such as mass enrolment in Higher Education Institutions (HEIs) (Tan and French-Arnold, 2012) and advances in technology (Hager, Holland and Vecket, 2002; Datta, 2001) have changed the way organizations recruit graduates (Steiner and Gilliland, 1996; Anderson and Witvliet, 2008). Indeed, technological changes and globalization continue to increase the demand for skilled workers that can operate successfully in the global environment (Károly, 2010). In this context, organizations are becoming more flexible and responsive and accordingly are changing their preferred recruitment strategies in response to labour market conditions (Russo, Rietveld, Nijkamp and Gorter, 2000; Russo, Gorter and Schettkat 2001; Wilk and Cappelli, 2003).

Studies on recruitment have focused on how organizations attract job applicants (Larsen and Phillips; 2002; David, 2005; Celani and Singh, 2011), recruitment sources (Rynes, 1991) and employers' recruitment behaviour (Behrenz, 2001; Gorter, Nijkamp, and Rietveld, 1996; DeVaro, 2005). There has also been increased recognition of the need to explore the strategies organizations and corporate recruiters use to recruit and attract qualified applicants in response to the shift in labour market conditions (Carlson, Connerley and Mechan, 2002) but with limited attention given to new graduates. Furthermore, few studies have conceptualized and empirically addressed the processes and mechanisms used that show how employability skills influence corporate recruiters' decisions when recruiting new graduates (Stewart and Knowles, 2000; Mora and Ferrer-i-Carbonell, 2009).

Gorter et al. (1996) argue that advertisement is preferred as the first recruitment channel for applicants with work experience. Additionally, during the recruitment process corporate recruiters look for personal qualities and characteristics such as professional knowledge, personal engagement and social competence (Behrenz, 2001) that are less seen in new graduates.

Recruitment of new graduates by corporate recruiters therefore brings with it different decision-making strategies, making it a subject of interest to explore.

Abel, Deitz and Su (2014) define a recent graduate as an individual with an age range of twenty two to twenty seven years old and has not stayed in the industry for more than five years. In this study, a new or recent graduate is a graduate with a bachelor's degree who has not been in the labour market for more than three years. The study defines corporate recruiters as personnels responsible for hiring best qualified candidates in an organization. Recruiters also hire agencies that are specialized in recruiting human resources as may be demanded by their organizations.

To shed more light on this subject, this study explores the employability of new graduates from corporate recruiters' point of view following mass enrolment in HEIs in the Tanzanian context. The study limits the range of strategies to recruitment channels, screening tools and selection criteria, which are further discussed. The study therefore responds to the following questions. What recruitment strategies do corporate recruiters use to obtain employable and newly qualified graduates? What skills and attributes do corporate recruiters consider important when making decisions during the recruitment process? What tools and criteria do corporate recruiters use to assess the possession of skills and attributes of new graduates during the recruitment process? Recruitment being the function of application through the right channel(s) and the related screening and selection processes, establishing what is assessed during each process will add value to the current literature. The study findings will also be useful to different stakeholders of HEIs including graduates (Steward and Knowles, 2000).

A literature review was conducted to establish what recruitment channels, potential screening tools and selection criteria are used by corporate recruiters. Interviews were conducted with 22 corporate recruiters in Tanzania in firms that operate at the local, national and multinational level. The findings show that recruiters use both formal (graduate recruitment programs, advertisement in newspapers and company websites) and informal (word of mouth and interns) recruitment channels to attract new graduates. In relation to the screening of applicants, there is a growing trend in using tests, particularly aptitude tests to screen applicants. Besides assessing graduates' soft skills, particularly communication and attitude, recruiters also demand that applicants possess basic technical and general knowledge that is assessed during the interview. The findings are in line with Branine's (2008) study on the graduate recruitment and selection process in the UK. The study establishes that employers, irrespective of the size and

and nature of business, emphasize more on graduates' personal qualities, attitudes and transferable skills compared to the type and level of educational qualification they possess.

The study contributes to the recruitment literature in terms of knowledge and particularly the strategies used by corporate recruiters to attract potential new graduates. The study also broadens our understanding of the criteria used by corporate recruiters when recruiting new graduates. On the practical aspects, the study highlights the search channels that new graduates need to focus on if they want to be recruited by corporate firms. The study also provides a range of selection tools and criteria besides academic qualifications that corporate recruiters focus on during the recruitment process. HEIs can enhance graduates' understanding of the selection tools and criteria that will make smooth their transition to the labour market.

The rest of the paper is organized as follows. Section 2.2 discusses the Tanzanian context, sections 2.3 and 2.4 review the literature on the recruitment process and recruitment of new graduates in corporate firms. Section 2.5 describes the methodology. Sections 2.6 and 2.7 provide study results. Section 2.8 discusses the study findings and the last section provides policy implications, study limitation and the conclusion.

## **2.2 Higher Education Graduates and the Tanzanian labour market**

The growing trend towards unemployment among graduates is being experienced worldwide (see ILO, 2013; Rovira et al. 2010; Green and Henseke, 2014). In Tanzania, a similar trend is being experienced and the challenge is not only that of addressing graduate unemployment but also of absorbing new entrants into the labour market following mass enrolment in HEIs (Tanzania Commission for Universities (TCU), 2009; 2012). According to TCU (2012) facts and figures, HEI enrolment increased by 87 percent from 2001 to 2011. This came about in response to the government's decision to liberalize the establishment, ownership and management of HEIs. At a graduation rate of 25 percent, cumulatively, almost 75 thousand graduates were released into the labour market in 2011 and more than 100 thousand graduates were released into the labour market in 2014 compared with 28 thousand plus graduates that graduated in 2004.

Finding jobs was not a big problem for university and college graduates when the demand for university graduates was high, and when university education was an elite education (Karadisi, 2012). The government was the main employer of graduates after independence (1961). This changed in 1992 following a new regulation aimed at reducing government

expenditure (URT, 2011). This era was characterized by the retrenchment of workers and lack of employment among graduates, which was a tragedy for a poor country having unemployed graduates (Nyerere, 2001). Although the contribution of the private sector and industry to job creation is remarkable (Sutton and Olomi, 2012), limited information is available on the number of graduates absorbed by the private sector and available job opportunities in corporate firms and other sectors.

In assessing the effectiveness of Tanzanian universities and colleges in imparting skills demanded by the labour market, Karadisi (2012) reveals that the skills imparted to graduates do not meet the demands of the labour market. While graduates possessing employability skills make a smooth transition into the labour market, graduates lacking those skills find it difficult to find adequate employment given the competitive nature of the labour market. Additionally, graduates possessing employability skills are not only sustainably employed within and outside their organizations but they are also demanded by employers across all sectors (Datta, 2001; Hillage and Pollard, 1998; Yorke and Knight, 2004). A further review of the factors that influence recruitment decisions from the recruiters' point of view highlights the Tanzanian context given its current state.

### **2.3 Factors influencing graduate recruitment decisions**

Recruitment is described as a set of activities and processes used to legally obtain a sufficient number of qualified people to realize a common interest of the person and that of an organization (Schuler, 1987). Research on recruitment focuses on two streams. The first is the individual perspective, which focuses on the applicant's impression and the decision to join recruiters with various characteristics (Rynes, 1991; Turban, Forret and Hendrickson, 1998). This comprises the individual's positive attitude toward an organization, viewing it as a desirable entity and therefore exerting an effort to work for it (Aiman-Smith, Bauer, and Cable, 2001). For further details of this stream (see Keenan and Scott, 1985; Larsen and Phillips, 2002; David, 2005, and Gomes and Neves, 2011).

The second stream (which is the focus of this study) is the organizational perspective. This includes a broader range of strategies recruiters use to attract job applicants ranging from employer branding (perceptual representation of an organization to appeal to job seekers) and recruitment sources (recruiters' preference for various recruitment sources, in particular

application channels, screening tools and selection criteria) (Breugh and Starke, 2000; Rynes, 1991; Cable and Turban, 2001). A company's mission, culture and values are also noted as the main elements of employer branding (Chartered Institute of Personnel and Development, (CIPD), 2005).

Research on recruitment also focuses on job applicants' personal characteristics and individual factors that affect recruiters' decisions during the screening and selection process (Breugh and Starke, 2000; Rynes, 1991; Cable and Turban, 2001). These factors include education (Becker, 1964; Schultz, 1961), relevant experience (Cranmer, 2006), learning ability (Spence, 1974), positive attitude (Hillage and Pollard, 1998) and indirectly perceivable qualities such as emotional stress and innate abilities (Albrecht, 1981). Research also provides evidence of the link between employability skills (a synergic combination of personal qualities, skills of various kinds and subject understanding) (Knight and Yorke, 2003) and recruitment. The skills are also categorized as core or hard skills (technical knowledge) and soft skills (process skills and personal qualities) (Lorraine and Sewell, 2007; Knight and Yorke, 2004). A perfect blend of employability skills contributes to enhancing the recruitment decision process (Harvey, 2001) and in particular the recruitment of new graduates in the current labour market.

The recruitment process at the organizational level goes through different stages, ranging from advertising the job, the application process, screening of job applicants to selecting the right applicants (Devins and Hogarth, 2005). A successful recruitment process refers to the strategies organizations employ to identify and select the best candidates in order to develop its pool of human resources (Dessler, 2000; Richardson, 1989). The strategies are diverse and largely depend on the employers' sector, the nature of the service and the applicants and involve the exploration of search channels, screening tools and selection criteria. In other instances, an overlap exists between the screening and selection process making it hard to differentiate the tools and/or criteria used during each process.

To attract potential job applicants, recruiters use formal (newspapers, recruitment centres, career talks, graduate programmes) and informal (internal recruitment, word of mouth and informal networks) search methods. The key factors driving employers' choice of recruitment channel include the channel's ability to bring qualified candidates (Gorter, Nijkamp and Rietveld, 1996), labour market conditions (Russo, Rietveld, Nijkamp and Gortez, 1996), the nature of the job (Bunt, McAndrew and Kuechel, 2005) and related costs (Behrenz, 2001). Rees

and Schultz (1970) argue that informal methods such as word of mouth generate more information and are less preferable for recruiting long-term employees. Nebraska (2011) however suggests that multiple recruiting channels should be used when recruiting graduates, such as career talks and graduate recruitment programmes, since they provide information about the job and its requirements.

Recruiters use different tools and criteria to screen job applicants. There exist formal recruitment techniques such as a curriculum vitae (CV), tests, interviews, assessment centres, work experience, probationary period and informal ones such as referrals. While work experience is likely to be assessed during the application process, personal traits and innate abilities are most commonly assessed by subjective judgment during the interview (Devins and Hogarth, 2005). Assessment centres are used to observe an applicant's team-working and soft skills (Arthur, Day, McNelly and Edens, 2003).

The quality and nature of the position also affect whether an employer uses a formal or informal method to select and screen job applicants. While the use of recruitment agencies and national newspaper advertisements are most effective in recruiting to senior managerial posts and professional occupations, career talks, graduate recruitment programmes and local newspapers are the most effective channels for recruiting graduates and the unemployed (CIPD, 2005). In relation to the screening and selection of applicants, Jenkins and Wolf (2005) identify the extent to which employers use tests in the recruitment process instead of relying on the qualifications presented in a CV or application form.

According to Newton, Hurtsfield, Miller, Page and Akroyd (2005), psychological tests covering aptitude, personality and intelligence are commonly used to assess applicants' soft skills. The CIPD (2005) survey of UK employers for example, shows that the most common selection methods used to shortlist and screen job applicants include interviews (77 percent), CV or application form (68 percent), tests for specific skills (50 percent), literacy and numeracy tests (39 percent) and telephone interviews (30 percent), the last being used by call centres given their relevance to the job. While one-to-one interviews were common in the private sector, academic references were commonly used by the public sector and structured interviews with a selection panel were frequently used for senior and management roles.

Other factors that affect the recruitment process include socio-demographic factors (gender, economic status and ethnicity) (Blasko, Brennan, Little and Shah, 2002), a study

institution in terms of reputation and image (Deepphouse and Carter, 2005; Pampaloni, 2010), as well as the age and experience of the applicant (Behrenz, 2001). An exploratory study of Swedish employers by Behrenz (2001) on who gets the job and why found out, for example, that about 60 percent of employers regard lack of education and experience as the major reasons for eliminating applicants as being inappropriate for the vacancy. Age is also used to screen applicants, whereby applicants over 45 are eliminated.

While recruitment decision factors cut across different industries and job types, studies on the recruitment of new graduates (referred to as entry level jobs) indicate that employers view younger people to less likely have work experience. During the recruitment process new graduate recruiters therefore tend to focus on soft skills and behavioural attitudes (Johnson and Burden, 2003), with a less prominent role being played by qualifications, which traditionally have been used as the major selection criteria. While some employers use the degree classification as a screening tool, others subject applicants to a set of activities and assessment tests to assess their personal preferences (Arthur et al. 2003).

Such practices widen access to more diverse groups of job applicants, who may otherwise have been missed because of not having good academic qualifications (Morley and Aynsley, 2007). Additionally, there have been concerns as regard the reliability of the degree classification system (Yorke and Knight, 2007) and in particular grade inflation (Germaine, and Scandura, 2005). The concerns arise following different formalities and practices regarding the degree outcomes and classification among various universities (Yorke and Knight, 2007). In contexts where advanced general skills are scarce, recruiters acquire and develop such skills through accumulating mechanisms. According to Ghoshal, Moran and Bartlett (2001), the mechanisms include the effective selection of prospective candidates with high absorptive capacity who are capable of lifelong learning and who continually enhance their skills through both training and work.

Other employers recruit graduates from different backgrounds and fields of studies using criteria such as flexibility, adaptability and their willingness to learn to select the best fit. Such firms are committed to lifelong learning and have identified values which are used to determine the cultural fit of its employees (Hager et al. 2002). A study by Ratcliff and Associates (1995) further establishes that other employers limit their recruitment to few institutions with the view that diversity of the work applicants can still be obtained within such institutions.

Table 2.1 provides a summary of the reviewed literature on the factors affecting recruitment decisions from the organizations' point of view. The factors relate to the investment in human capital, particularly hard skills (technical skills and educational attainment) and soft skills (such as personal qualities, attitude and behavioural aspects) and how they influence the recruitment of new graduates in organizations. Based on the literature outline no studies have critically assessed how corporate firms recruit new graduates following mass enrolment in HEIs and particularly in the Tanzanian context. To answer the research questions and to get insights into the Tanzanian situation an analysis of the recruiter situation was undertaken as discussed in the coming section.

#### **2.4. Recruitment of new graduates in organizations and corporate firms**

An organization is a complex social system created by people with the aim of achieving some goals (Porter, 1979). A corporate firm (a company or an enterprise) is an organization with a legal entity that employs productive resources, such as capital and human, with the aim of making a profit (Hoang, 2014). This study focuses on human resources and specifically new graduates and how they are employed by corporate firms to achieve some organizational goals, being the delivery of products or services needed by the market.

Organizations vary in terms of size, nature of the business and/or sector and the level of operation, whether local, national or multinational. Besides different categorizations by private and public sector (see Re'em, 2010; Eurostat, 1990) and given the research area, the study adheres to the categorization of employers registered under the Association of Tanzania Employers (ATE). The categorization of ATE members is obtained from private firms (small, medium and larger enterprises) and parastatal organizations. The members are classified as those involved in Agriculture, Commerce, Industry, Mining, Banking and Finance, Private Security, the Oil industry, Utilities and Services. This categorization is expanded using the study sample under the methodology section.



**Table 2.1: Factors affecting organization’s recruitment decisions**

Literature	Skills category	Scope
<p><b>Human capital theory</b> (Becker, 1964; van Loo and Rocco, 2004; Knight and Yorke, 2003; Blasko et al. 2002; Kong, 2011; Rothwell and Arnold, 2007)</p>	<p>Hard skills (specific teachable abilities that can be defined and measured).</p>	<p>One determinant of human capital is the educational background (van Loo and Rocco, 2004). Investment in human capital enhances individuals’ knowledge and skills resulting in increased productivity (Becker, 1964; Schultz, 1961). In relation to educational attainment, the field of study also matters. According to Rothwell and Arnold (2007), factors such as academic performance, university brand and the reputation as well as the status and credibility of graduates’ field of study affect labour market outcomes. The field of study has an impact of the propensity of a graduate to gain employment in non-graduate occupations (see Elias and Purcell, 2004). Additionally, the field of study influences differently the development of employability skills and labour market prospects, with vocational science graduates (medicine, computing, engineering and architecture) having more favourable labour market outcomes than other fields and/or disciplines of study (Blasko et al. 2002; Kong, 2011).</p>
<p><b>Trait theory</b> (McClelland, 1961; Costa and McCrae, 2008)</p> <p><b>Competence theory</b> (Spencer and Spencer, 1993)</p>	<p>Soft skills (desirable qualities that do not depend on acquired knowledge. Are less tangible and harder to quantify. Also include positive flexible attitude)</p>	<p>These are a cluster of stable personality traits and interpersonal skills, such as motivation to achieve, locus of control, communication, language, risk taking, problem-solving style, team building, innovation and values that characterize a person's relationships with other people (McClelland, 1961; Bischof, 1970). Soft skills cause individuals to behave in certain ways. The combination and interaction of these traits form an individual’s unique personality and can be employed to assess competencies (Costa and McCrae, 2008). Soft and hard skills complement each other thus merging the needs of educational providers and various education stakeholders (Baum, 2002, pg 356).</p>

The literature is limited on the relationship between firm characteristics (in terms of sector and size) and the number of job applicants and vacant posts per year and how these affect the recruitment process (Mangan and Trendle, 2014). This could be due to the lack of data containing all these variables. This study provides descriptive statistics on these variables, adding to the current understanding on the recruitment processes used by corporate firms. Mangan and Trendle (2014) for example established the relationship between vacancy duration and firm size, with the findings showing that the effect of firm size reduces the duration of job vacancies, especially in firms with less than 470 employees. The study is of the view that firm size positively impacts the perceptions associated with greater job security and career progression. However, as the firm's size increases the selection procedures become more stringent, lengthening the duration of vacancies. The study however did not establish how the size of the firm influences the number of job applicants and the newly vacant posts, but it concluded that hard-to-fill vacancies and skills shortages are not due to the industry of the employer, but rather to the wage structure, firm size and location and the skills level of those being hired.

A study by Bundy and Norris (1992) however shows that sectors that demand accounting backgrounds such as auditing firms and financial institutions receive more new graduate applicants than other sectors. This could be due successful and promising career prospects in such firms (Dowling and Moran, 2012) and wage structure (Mangan and Trendle, 2014). According to Carpenter and Strawser (1970) and Peterson and Devlin (1998) success in a career is seen in terms of promotion prospects, job security, wage package and the working environment. For example, public servants are reported to have greater social security and educational benefits than those in other sectors (Re'em, 2010). It can also be possible that auditing firms attract more applicants in order to get the best candidates. This is also necessary to enhance the branding and reputation of these firms given the nature of their clientele (Backhaus and Tikoo, 2004; Collins and Han, 2004).

In Tanzania, limited studies are available on graduates' career prospects and where they secure employment after graduation. Over a decade however, a tracer study by Kaijage (1997) on business studies graduates established that fifty-seven percent were employed by the parastatal sector, twenty six percent by the private sector and fourteen percent by the government. Another study Fulgence (2015b) established that ninety three percent of university degree teachers are employed in the education sector, the majority in government schools.

Regarding the nature of business, job requirements determine the nature of applicants in terms of study disciplines and related competencies. For example, a high-tech business needs employees with a high level of knowledge derived from their education, particularly of engineering or information technology. This is so because of the technical competence demanded by the job and the industry itself (Tixier, 1996). There is however, a non-linear relationship between the nature of entry level jobs and study discipline or educational background (Marinescu and Wolthof, 2012; Longhi and Brynin, 2009). For example, it is now common to find financial institutions and auditing firms recruiting graduates from all disciplines. This is possible given the similarity of job tasks and characteristics within an occupation. The shift towards a non-linear relationship between entry level jobs and education is common in the current labour market since occupations are no longer vertical within one organization (Datta, 2001).

Singh (2006) defines occupation as a group of similar jobs sharing more or less similar requirements in terms of education, skills and returns. In this case, it is possible that certain individual skills can be transferred across occupations, making this non-linear relationship possible (Marinescu and Wolthof, 2012). In other instances, firms recruiting from all disciplines reflect a natural career progression and adjustment in response to the initial poor career decision making of individuals, making it possible for them to change their career preferences given their level of education (Longhi and Brynin, 2009). Although occupations tend to be relatively homogenous with regard to educational level, each occupation requires a certain level of education, making it difficult for organizations to recruit people for a certain position if they do not meet their requirements (Fritsch and Rusakova, 2011).

Employers also differ according to the sector they work in and the skills required for it. Indeed, according to Canny (2004), requirement recruitments from different sectors vary. For instance, those in manufacturing place more emphasis on technical skills than individual characteristics. A study by Tan and French-Arnold (2012), for example, established that non-government organizations (NGOs) and industry employers regard employable graduates as those prepared to work, having the appropriate skills and competencies and the ability to learn and re-learn. Additionally, while NGOs focus more on humanitarian values (such as honesty, caring, patience) and socially desirable attitudes (such as being open, curious and confident) as the key characteristics of employability, other industry employers focus on attitude (such as

preparedness, positivity, interest, dedication, team spirit, and readiness to face challenges and hardship) and work-related competencies (such as the ability to apply theory in the work environment, the ability to speak English and communication skills) as important characteristics. This study however did not focus on NGOs as prospective employers of graduates, but rather on firms that largely recruit new graduates.

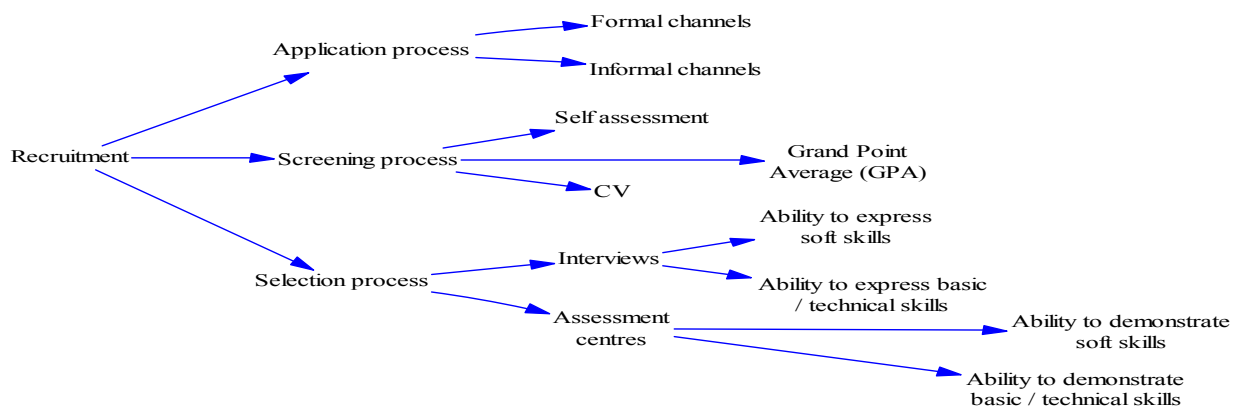
Maud (1996) provides a detailed analysis of the three main tools used by European recruiters to obtain competent and qualified job applicants, which are application forms, the selection interview and tests. These tools are still used and there is a growing trend in the use of the internet and other sophisticated tools for recruitment purposes (see Brencic and Norris, 2012; Branine, 2008). Other tools used by recruiters when recruiting new graduates include networking with academic institutions (Elias and Purcell, 2004), the use of interns (Henkens, Remery and Schippers (2005) and career talks and or job fairs (Roehling and Cavanaugh, 2000). Although literature is available explaining why each recruiter prefers a certain recruitment tool (see Lievens, van Dam and Anderson, 2002; Parry and Tyson, 2007; Behrenz, 2001), the study by Cable and Turban (2001) shows the word of mouth which is an informal channel to be commonly used by employers during recruitment process. The channel is however less applicable to new graduates since their informal networks are limited (Hogarth and Wilson, 2003).

In relation to the recruitment process, particularly the application and interview processes, employers expect job applicants to possess both hard and soft skills (van Loo and Rocco, 2004; Finch et al. 2013, Lowden et al. 2011). Although certain hard skills are relevant in relation to the nature of job, corporate recruiters are increasingly looking for job applicants possessing soft skills (see Branine, 2008). This is because it is easier for an employee to acquire technical skills (such as how to use a certain computer program) than to train an employee in a soft skill (such as common sense) which is difficult and no amount of training is likely to change them (Tixier, 1996). In this context, job applicants need to emphasize both hard and soft skills during the recruitment process in such a way that if they lack a certain hard skill required by the company, they can emphasize a particular soft skill that would be valuable in the position. For example, if the job involves projects related activities, experience of working as a team member needs to be emphasized.

Employers therefore ask competence-based questions which, according to Sanchez and Heene (2005), evaluate an individual’s ability to perform an actual occupational role and solve problems in a real-life context rather than the mere possession of knowledge or skills. The use of competence-based questions during recruitment interviews provides for an objective evaluation of the applicants’ soft skills (Kodz et al. 1998; Rees and Porter, 2003). Regardless of the size of the company, soft skills such as communication skills and team-working are perceived to carry more weight during the recruitment process than technical or hard skills, such as academic qualifications and IT skills (Archer and Davison, 2008; Glass, Landsburgh, Quashie and McGregor, 2008).

Figure 2.1 presents the study conceptual framework. To summarize the figure, the study categorizes recruitment into three processes; application, screening and selection. Under the application process, job applications in organizations are accompanied by academic credentials and CVs or application forms (Jenkins and Wolf, 2005). Both formal and informal recruitment channels are used by organizations to get the best job applicants. Under the screening process, the applicants and the submitted credentials are reviewed and or assessed using different screening tools such as tests and academic performance. Once screening is done, applicants are further subjected to an interview where they demonstrate their skills and attributes (Newton, Hurstfield, Miller, Page and Akroyd, 2005). Applicants can be further assessed through assessment centres depending on the nature of the organization (Arthur et al. 2003). Graduates who pass the selection process are more likely to be recruited by prospective employers and develop their career.

**Figure 2.1. The conceptual framework**



**Source:** Own illustration

## **2.5 Method**

To understand the dynamics of graduates' recruitment process, the qualitative methodology was considered well suited to achieve the study objectives (Eisenhardt, 1989; Yin, 2003; Maurer and Ebers, 2006). Qualitative data provide insights that can be hardly obtained from quantitative data (Mintzberg, 1979; Smirchich, 1983; Orum, Feagin and Sjoberg, 1991). According to Jones (2001), focusing on a defined group of recruiters using the qualitative approach generates rich and holistic data, with the potential for revealing complexity. This study abides to Jones (2001) views.

Interviews were conducted with 22 corporate recruiters in Tanzania to gain an understanding of recruitment procedures, such as search channels and factors influencing the application process, such as the screening tools and techniques used. It was also important to learn what employers consider essential during the selection process, in particular the selection criteria and the factors that influence the decision to recruit new graduates. While it is not possible to represent the population with 22 interviews, selection of the case studies was purposive, reflecting typical recruitment factors and a range of organizational characteristics in terms of type, size, industry / sectors and geographical location (van Loo and Rocco, 2004; Parry and Tyson, 2007; Finch et al. 2013, Lowden et al. 2011). The sample selection criteria not only ensured that recruiters had recruited new graduates over the past three years (Abel et al. 2014) but they had also attracted new graduates from different disciplines, which is a growing trend among corporate recruiters (Hager et al. 2002; Kostoglou, Vasilakopoulos and Zafeiropoulos, 2007b). These cases therefore offered valuable insights into the motivation, strategies, processes and experience of recruiting new graduates.

According to Eisenhardt (1989) and Yin (2003), research based on qualitative case studies should include between 4 and 10 cases to reach theoretical saturation point. Theoretical saturation is also established during the coding process when new data add nothing to what the researcher already knows about a category, properties and their relationship with the core category (Strauss and Corbin, 1990). The study sample therefore reached theoretical saturation point and provided a good source of data to address the research questions in the Tanzanian context.

The participants were first contacted by telephone to establish their willingness to participate in the study. This was followed by an email conversation exploring issues pertinent to

the research objectives. On average, the interview sessions lasted for forty to sixty minutes. The interviews were audio recorded and transcribed verbatim. The transcripts were imported into MAXQDA 11 professional software used for qualitative and mixed-methods data analysis to identify themes (MAXQDA, 2014). To facilitate the analysis process, codes were created. According to Kuckartz (2001), codes are used to identify themes in the transcribed interviews and serve as an analytical tool for the systematic analysis of the data.

To ensure that no information was missed out during analysis classical, in-vivo and free coding were used. Classical coding allows a selected text to be attached to an existing code as specified by the researcher (Strauss and Corbin, 1990). Under free coding a new code is attached to each text and in the in-vivo coding the words or terms used by the participants are taken as codes (MAXQDA, 2014). Accordingly, in-vivo and free coding are applied in grounded theory, which was the approach applied in this study. Grounded theory examines management complexities (Locke, 2001) and the approach was suitable for this study since the recruitment process falls within the management decisions. The approach generates theory grounded on data relating to a particular situation and has been extensively used in research (Wilson and Hutchinson 1991; Glaser 1992, 1998; 2001; Creswell, 1998). According to Locke (2001) and Partington (2000), and given its contextual nature, its application in other studies does not necessarily generate a theory but rather the use of systematic procedures and techniques is of practical value to both researchers and practitioners in seeking to improve workplace practices. Thus Locke (2001) and Partington's (2000) views were reflected in this study.

To ensure the qualitative rigour and reliability of the findings (Lincoln and Guba, 1985; Guba and Lincoln, 1982), a few participants were contacted to confirm the results and no major changes were observed. To verify the coding, the data was processed more than twice with two researchers going through the interviews and any arising differences agreed upon (Guba and Lincoln, 1982). The information gathered was exhaustive since most of the participants rephrased the same theme and statements in different words. This enabled the relationships between study categories and themes to be well established and validated by the data as suggested by (Strauss and Corbin, 1990). Employed graduates in three firms (three interviews) were also interviewed to complement the information from the different interview sources. The recruited graduates' perspective was however not the main focus of this study.

In terms of measures, the variables assessed were recruitment channels, screening tools, selection criteria and recruiters' expectations, which reflected the categorization of the thematic codes. The diverse responses of the Tanzanian recruiters on the variables are therefore categorized into 55 thematic codes. Under the application and screening processes, each comprise of 9 sub-codes. The categorization of the selection process is based on the nature of the questions and the skills employers ask about during the interview, each with 8 and 17 sub-codes, respectively. Additionally, 12 codes are generated from the participants' responses on the factors that affect the decision to recruit new graduates.

The findings are further substantiated by selected interview quotes that allow the participants' views to prevail (Sandelowski, 1998). The higher in vivo percentages in a given code reflect greater concern for the factor that it represents (Schilling, 2006) and as such they do not add up to 100. The use of percentages helps not only to avoid conclusions that are based on a single over-used comment but it also gives an indication of how representative of the whole sample the comments are (Mwasalwiba, Dahles and Wakkee, 2012). This also minimizes the number of quotations needed to support the findings (Sandelowski, 1998; Schilling, 2006).

Appendix C summarizes categorization of the major codes and sub-codes, supported by the literature. Since recruitment comprises the application and selection process and to avoid repetition only 34 codes are included, that is 22 codes and 12 codes for the selection process and the recruitment decision factors, respectively.

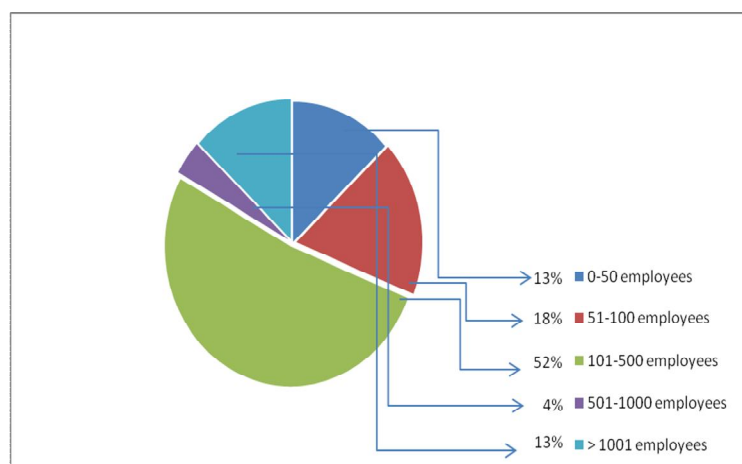
## **2.6 Discussion of descriptive results**

The distribution of respondents based on recruiters size is shown in Figures 2.2. Table 2.2 summarizes the number of job applicants per industry and the number of job vacancies per year. In terms of characteristics, 72.7 percent of the respondents' firms are privately owned, 18.2 percent have a public-private partnership and 9.1 percent are owned by the government. This indicates that a good number of corporate firms are privately owned. All the firms use formal recruitment practices and have an human resources management department and personnel, which is quite common in large firms (de Kok, Uhlaner and Thurik, 2007). Almost three-quarters of the firms (72.7 percent), most of which have 1-500 employees, have 0-20 job vacancies per year. Although a study by Helfand, Sadeghi and Talan (2007) did not establish the number of vacancies per year in relation to the size of an organization, it did establish that small firms (with



1 to 499 employees) have about 64 percent of new jobs. Two-thirds of all the firms receive 0 – 200 applications per year.

**Figure 2.2. Distribution of recruiters by size**



**Source:** Interview findings

Additionally, of all the firms 5 (22.7 percent) receive 1000 plus applicants. This is common in the public sector, auditing firms, recruitment agencies and the mining sector. The public sector, for example, is regarded as the main recruiter of both skilled and relatively unskilled labour, thereby attracting many more applicants than other sectors (Hermelin, 2005). It is also possible that applicants are attracted to auditing firms due to their reputation, future prospects like training and pensionable terms and this justifies high number of applicants in these firms' views also supported by Sivertzen, Nilsen and Olafsen (2013).

The study also establishes that most of the employed graduates studied engineering and business studies. Similar findings have been established by the EU (2010), Blasko et al. (2002) and Kong (2011) on the preference for engineering and business studies graduates by employers in all sectors. An analytical report by the EU (2011) on employers' perception of graduates' employability, for example, indicates that although companies included in their study recruit university graduates from various educational fields, the most frequently mentioned areas across the different countries were engineering (55 percent) and business or economic studies (54 percent). According to Blasko et al. (2002), employers' preference for these fields is largely due to their direct link to specific occupation(s). Besides these general descriptive data, the study provides new insights into specific recruitment channels, screening tools and selection criteria which are discussed in the following sections.

**Table 2.2. Firms characteristics**

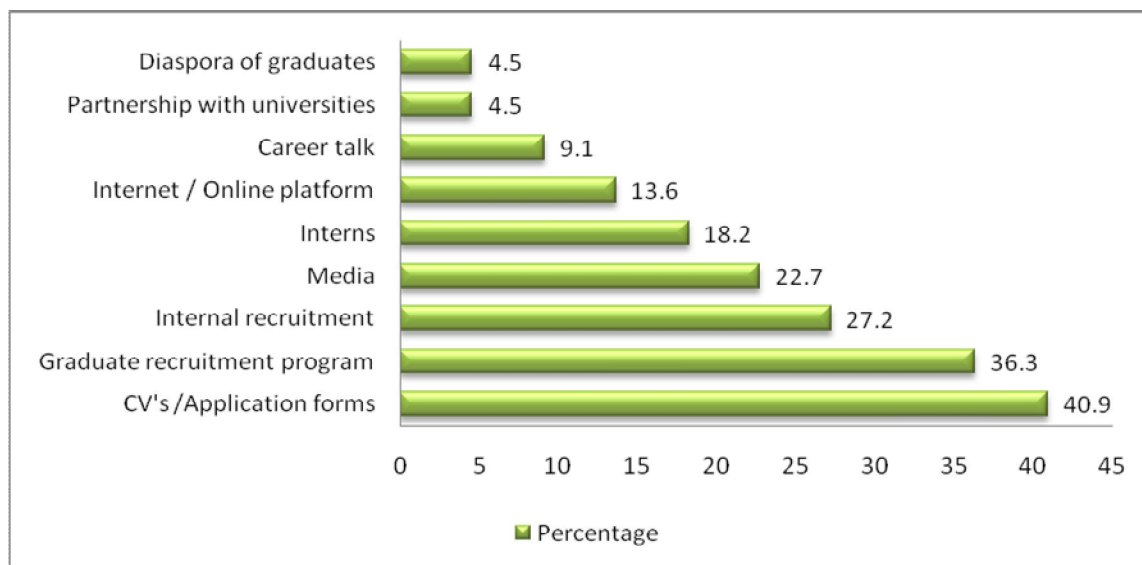
Attribute	Categorization	Sector										Total	Percent
		Oil Trading Companies	Auditing	Education Institution	Banking FIs'	Recruitment agencies	Civil sector	Industry/Manufacturing	Telecoms	Mining			
Job applicants per year	0-200	4	2	1	1	2	-	2	1	-	13	59.1	
	201-400	-	1	-	1	-	-	-	-	-	2	9.1	
	401-600	-	-	-	-	-	-	-	1	-	1	4.5	
	601-800	-	-	-	1	-	-	-	-	-	1	4.5	
	601-1000	-	-	-	-	-	-	-	-	-	-	-	
	1001 and above	-	2	-	-	1	1	-	-	1	5	22.7	
Open posts per year	0-20	4	4	1	2	1	-	2	2	-	16	72.7	
	21-40	-	1	-	1	-	-	-	-	-	2	9.1	
	41 and above	-	-	-	-	2	1	-	-	1	4	18.2	
<b>Total percentage (percent)</b>		<b>18.2</b>	<b>22.7</b>	<b>4.5</b>	<b>13.6</b>	<b>13.6</b>	<b>4.5</b>	<b>9.1</b>	<b>9.1</b>	<b>4.5</b>	<b>100</b>		

Source: Interview data (2012)

### 2.6.1 Recruitment channels

As shown in Figure 2.3, 40.9 percent of the recruiters receive drop-in curriculum vitae (CV's). A study by Branine (2008), for example, established that although there has been a significant rise in the use of other recruitment channels, such as the internet, to recruit graduates, most employers (80 percent) still use CVs since they are more person centred. In this study auditing firms are the ones leading in receiving drop-in CVs (44.4 percent), followed by recruitment agencies (22.2 percent). CVs are received also in schools (education sector), telecom companies and the banking industry (with 11.1 percent each).

**Figure 2.3. Recruitment Channels**



**Source:** Interview findings (2012)

The large representation of applicants in auditing firms can be attributed to the organizations' branding (Sivertzen et al. 2013) and the nature of applicants required by the firms, taking into consideration the non-linear relationship between career and field of study (see Longhi and Brynin, 2009; Elias and Purcell, 2004). The nature of the recruitment channel itself matters given its popularity with job seekers and employers (Branine, 2008). It is also possible that the applicants are unaware of other recruitment channels available to them.

Other most used recruitment channels are graduate recruitment programmes (36.3 percent), internal recruitment through informal networks such as word of mouth (27.2 percent), advertisements in media such as newspaper and televisions (22.7 percent), database of interns

(18.2 percent) and online platforms (13.6 percent). The graduate recruitment programmes are used by telecom companies (37.5 percent), oil trading companies (25 percent), mining (12.5 percent), recruitment agencies (12.5 percent) and auditing firms (12.5 percent). Internal recruitment is commonly used by recruitment agencies (60 percent), oil trading companies (20 percent), telecom companies (10 percent) and schools (10 percent). According to CIPD (2005), graduate recruitment programmes are the most effective for recruiting graduates since they are made aware of the different job posts before they make an informed decision on which one to take. Advertising in the media is commonly done by the government and as Henkens et al. (2005) argue organizations in the public sector are more inclined to use formal recruitment methods because the sector requires transparency and free access for all.

Other channels are career talks or job fairs (9.1 percent), diaspora of graduates and partnership with universities, both with (4.5 percent) with the last two being the least used. According to Roehling and Cavanaugh (2000), job fairs make job seekers aware of potential employers and they have continued to be an effective recruiting method among employers competing for college graduates. This study also establishes that some firms use more than one recruitment channel. According to Collins and Han (2004), a mixture of recruitment activities by corporate firms not only leverages their employment brand equity but it also creates a larger pool of applicants and significantly influences job seekers' intention to pursue employment opportunities.

### **2.6.2 Nature of job applicants sought by recruiters**

There exists diversity in the nature of graduates demanded by recruiters. While 22.5 percent of the study participants recruit from specific disciplines, mostly depending on the nature of their business, 66.63 percent recruit from all disciplines and or educational backgrounds and 10.67 percent recruit from specific institutions. Recruitment from all disciplines is common in auditing firms and this can attributed to the need of having diversified workforce views also supported by Canny (2004). Among the reasons for recruiting graduates from different fields include the need to solve business problems and the demand for expertise from other fields. Substantiating this with a quote, one staff partner commented that: *“We need inquisitive minds from other disciplines to solve auditing problems. We recruit people from education, law and medicine and even other disciplines... they pass very well in our aptitude tests and even in our professional*

*qualification exams. We do not have a scientific explanation, but it is through the challenges that we came to work on this aspect and it gives us the ability to work with people from different disciplines” (7\_Auditing firm).*

On the same lines, the participants explained their viewpoint that some graduates are not oriented to the right career in the course of their studies. This can be largely attributed to lack of such programs at lower levels of education limiting graduates’ ability to study fields of their interest. In due course, when such graduates are oriented to the right career during job orientation and job rotation, they become better candidates in fields different from their study discipline. The new placement after orientation may definitely determine one’s future career. With an illustrative quote one staff partner said; *“This is an accountancy firm but we do not attract only accountants. We go to universities; we attract good candidates from all disciplines to apply whether from education, from science... if they meet our requirements we take them and we make them into very good accountants. We have got very good examples” ... (5\_ Auditing firm).*

Another interviewee commented; *“We use the graduate programme as a recruitment channel which involves recruiting graduates directly from school and coaching and training them. This takes 2-3 years before we expose them to managerial positions. We get accountants and engineers, but later they become very good marketers. For example, a friend of mine who is a medical doctor is among the best Human Resources officers in the country” ... (9\_Telecoms).*

In the Tanzanian context, few empirical studies have assessed how career orientation and identity influences individuals’ future job prospects. According to Fugate et al. (2004), the choice of career depends on an individual’s ability to make key decisions affecting his or her life, such as the kind of degree to study for in order to enter a particular profession. In other contexts, however, a study by McMahon (2004), for example, establishes that the integration of work and learning enables students to link university academic studies with work experience and their subsequent placement in a profession. Given the study findings, it is possible that these arguments are not well integrated to enable a link to be made between an individual’s education and future career.

### **2.6.3 Screening tools and selection criteria**

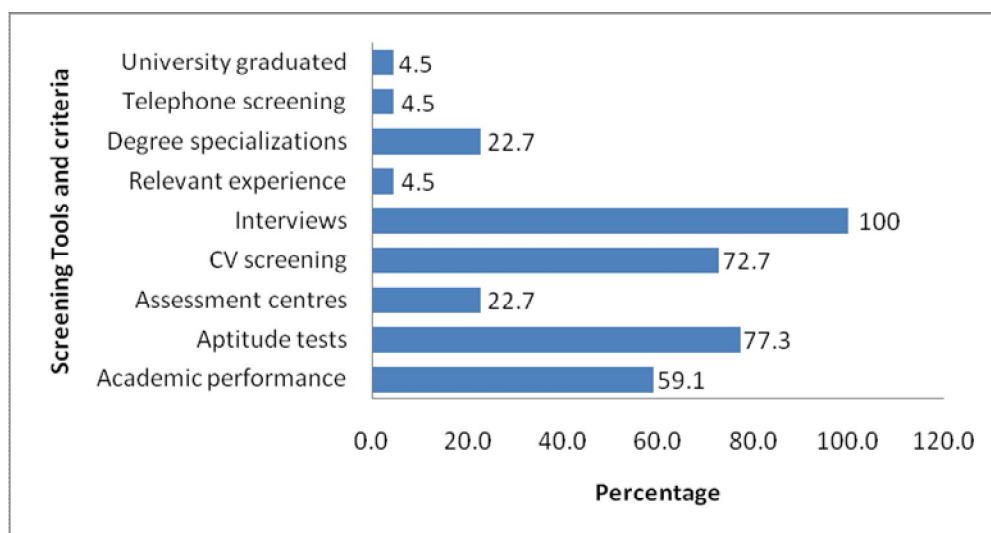
Of importance to the study too are the results concerning the tools used to screen the best applicants. According to Robert (2005), the purpose of screening is to match an individual’s

skills to the requirements of the job. Screening therefore involves reviewing an applicant's educational background and work experience in relation to the organization cultural fit and job requirements. As shown in Figure 2.4, all recruiters use interviews during the screening and selection processes. Similar findings are established by Branine (2008) adding that interview is the most commonly used by employers. Interviews are best suited as they assess oral communication, self-expression, the command of language and how sociable applicants are when faced with an interview panel (Devins and Hogarth, 2005). Other highly ranked tools are aptitude tests (77.3 percent), CV screening (72.7 percent) and academic performance (59.1 percent). Aptitude tests are best suited for recruiters who receive a large number of applicants and those needing highly skilled employees (Tixier, 1996; Erasmus, 2005; Sackett and Lievens, 2008; Lievens et al. 2002). According to Erasmus (2005), aptitude test measure certain traits of individuals whereby applicants interested in a particular kind of work will be highly motivated to perform well in that area. Tixier (1996) further established that the tests are mostly taken by university graduates and young managers rather than senior officials and top management.

As regards academic performance, other firms, in particular auditing firms for this study, extend the pass mark to include performance in Mathematics and English at lower levels. Similar findings have been established by Elias and Purcell (2004), who argue that during recruitment employers take into account not only the performance of individuals at degree level, but also previous academic achievements and the type of institution where graduates studied. This is because there is a positive link between individuals' past academic performance in the areas of Mathematics and future work (Elias and Purcell, 2004). As one staff partner narrated: ... *We did a test and found that people who did well in Maths and Science have a good analytical mindset... We decided to go to the lower level to look for the graduates who did not study maths at university (7\_Auditing firm).*

It was also noted that the criteria are used at different stages of the recruitment process. While some firms use the interview as the first criterion others use interviews as the last one before recruiting an applicant.

**Figure 2.4. Screening tools**



**Source:** Interview Data (2012)

As shown in Table 2.3, academic performance and relevance of the technical specialization are the first screening tools, each with 40.9 percent. These are the factors that are considered when employers go through a CV.

**Table 2.3. Screening tools used by firms**

Screening tools	1st	2 <sup>nd</sup>	3rd	4th	5th	N/A
Trial / Probation period	9.1	9.1	9.1	18.2	27.3	27.3
Use university pass marks (GPA)	40.9	27.3	4.5	-	4.5	22.7
Aptitude and Personality Test	9.1	36.4	31.8	22.7	-	-
Relevance to the vacant post in terms of technical expertise	40.9	18.2	9.1	4.5	-	27.3
Assessment Centre	-	-	13.6	9.1	-	77.3
Oral interview	9.1	18.2	22.7	45.5	4.5	-
University where one graduated	9.1	-	-	-	-	90.1
Telephone screening	-	4.5	-	-	-	95.5
CV screening	36.4	36.4	-	-	-	27.2

Interview data (2012) N/A – Not applicable

It can also be noted that 27.2 percent of the firms do not use the CV as a screening tool but rather assessment tests and particularly aptitude tests, which are ranked second (36.4 percent). Although academic qualifications and technical expertise are ranked first as screening

tools, 22.7 percent of the recruiters reported that academic qualifications in terms of GPA are inapplicable as screening and selection criteria. Additionally, 27.3 percent of the recruiters commented that an applicant's technical expertise is inapplicable as a screening criterion. The following quotes underline this. *"We do not focus on GPAs. I have realized that not only do people with A's perform well but people with C's (average people) are the ones that perform wonderfully. I do not look for GPA, I look for output"* (23\_Manufacturing firm).

*"Previously we considered GPAs, but now we have a problem as there are many universities and we do not know how they compute their university qualifications. Graduates from some universities have lower GPAs, but perform well. Applicants with equivalent qualifications might have very good GPAs, but are not good"* (11\_Civil sector).

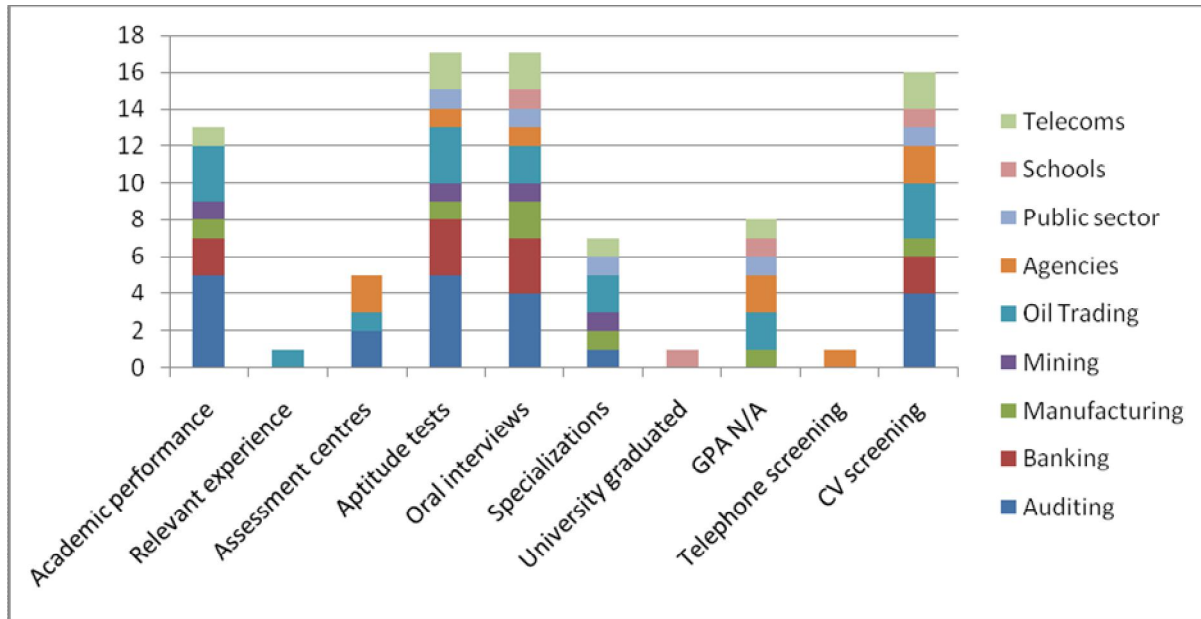
Regarding academic qualifications and the need for technical qualifications, the study findings echo those of Tan and French-Arnold (2012) on the value employers attach to qualifications and technical skills in relation to employability. The study further argues that such aspects alone do not guarantee employment and individuals' employability. Other factors such as the type of study institution (which is among the second least applicable as a screening tool in this study) can also form part of the selection criteria. For instance, some studies support the influence of the study institution and particularly old universities as a screening tool, with the view that they are better than new ones in terms of research, academic staff and the quality of students (Elias and Purcell, 2005). A study by (Branine, 2008), whose results are similar to these study findings, argues that only 9 percent of employers indicated that they prefer graduates from old universities. The study indicated however that employers prefer universities where graduates undertook work placements as part of their studies. Branine's (2008) study further argues that regardless of age and size, each university has something to offer in terms of certain disciplines, programmes and courses and as such their outputs are employable.

Figure 2.5 presents a summary of the screening tools as per recruiters' nature of business and or service. The findings show that aptitude test, oral interview and CV screening are used by almost all recruiters during the recruitment process, followed by academic qualifications. Second, work experience, study institutions and telephone screening are the methods least used by the study participants during the recruitment process. The results justify the views of Lowden et al. (2011) that new graduates lack work experience and therefore it is not used as a screening tool. New graduates however possess experience obtained from their engagement in voluntary or



part-time activities. According to Lorraine and Sewell (2007), such activities enhance their level of employability and so should be taken into account in the recruitment process.

**Figure 2.5. Screening tools in relation to the nature of business**



**Source:** Interview data (2012)

In concluding this sub-section, different selection tools are used to select job applicants. Preference for the selection tools is largely attributed to the nature of the industry and/or sector. The study also establishes that oral interviews and aptitude tests are the selection tools most used. These are followed by CV screening and academic performance. A study by Steiner and Gilliland (2001) provides similar findings, adding that interviews, CVs and work experience are preferable by employers and are commonly used during the selection process. Other methods such as cognitive ability tests, personal references and personality inventories are moderately used. The preference for these selection tools might be a sign that some recruiters are unaware of other selection procedures and methods (Rowe, Williams, and Day, 1994; Terpstra and Rozell, 1997), calling for further research in this area.

In this study, there also exist some variations among firms on the usage of screening and or selection tools. For instance, auditing firms use almost all screening tools, which can be attributed to the large number of job applicants and their desire to attract the best candidates. According to Murphy (1986), a larger pool of applicants permits firms to be more selective when making job offers, thereby increasing the overall utility of selection systems and procedures. For

public servants' recruiters, the screening process focuses on an individual's knowledge, skills and abilities necessary for the job (Erasmus et al. 2005) and this has also been reflected in this study. While over the past (see de Grip, van Loo and Sanders, 2004), the selection of suitable job candidates was primarily concerned with matching people's qualification to specific jobs, in the current era, recruiters attach importance on the skills such as flexibility and individuals' ability to cope with changes. Therefore, when assessing people, recruiters look beyond the skills needed for a specific job and take into account their culture, personality, movements in and outside the institution and interaction with a wide range of potential colleagues. This can be the reason why organizations differ in the usage of different screening tools.

## **2.7 Employability skills in the light of Tanzanian recruiters**

### **2.7.1 Selection process**

The study further establishes what employers would like graduates to demonstrate during the selection process and particularly their employability skills during the interview process. Prior to the interview process, an interview panel is selected. In this study, the participants' interview panel consists of the Human Resources Manager, a member from the respective department and a member from another department (81.8 percent), recruitment professionals (4.5 percent) and consultants with different specializations (4.5 percent). During the interview, recruiters evaluate new graduates' experience obtained from their engagement in formal and informal activities. In this regard, 59.1 percent of the participants ask questions that focus on aspects not taught in school. Of these respondents, (31 percent) are auditing firms, (15 percent) are oil trading companies, recruitment agencies comprise (46 percent) and schools (8 percent). The objective is to measure individual soft skills and the ability to apply and transfer the knowledge learnt to different work settings.

The recruiters also ask questions to find out whether an individual has an understanding of basic technical skills (40.9 percent), such as the meaning of accounting in the banking industry and types of maintenance for engineers. Almost all recruiters ask these questions, with auditing and recruitment agencies each comprising (20 percent) and 10 percent each of banking and financial institutions, manufacturing/industry, schools, the public sector, the telecom and oil trading companies.

40.9 percent of employers are also interested in knowing about the career aspirations of job applicants and in particular where graduates see themselves in 5 to 10 years' time. In this regard, the study found out that 50 percent were auditing firms, oil trading companies and manufacturing each comprising 15 percent and recruitment agencies and school services 10 percent each. According to Markus (1983), an individual's ability to narrate who he or she is or who he or she wants to become in the work domain, first indicates personal goals and aspirations. Second, it describes the cognitive representation of the undesired state of the self and specific ideas about how that can be realized. The narrative therefore lays the groundwork for an individual's future career moves, including leadership roles within and outside the organization, which is important for employers. It also provides the foundation for an employee's occupational value, not only to him or herself but also to valued others (Ashforth and Fugate, 2001). As one partner narrated; *the nature of our business is more professional and the roles are pyramid shaped (14\_Auditing Firm). We want people who demonstrate the ability to grow from one level to another. This applies in more or less all firms (21\_Auditing).*

The study also reveals that 18.2 percent of the firms ask competence-based and problem-solving questions. Competence-based questions are commonly asked by recruitment agencies (50 percent), and oil trading companies and the public sector each with 25 percent. According to Boyatzis (1982) as quoted by Ahmed (2009, pg. 299) competence is an underlying characteristic of an individual (such as motive, traits, values, cognition or behavioural skills) related to superior performance in a job. Since recruiters search for individuals with job-related competencies, they use recruitment tools that objectively evaluate such skills. Employers are therefore increasingly making use of competency frameworks during the interview (Kodz et al. 1998). Under this framework, before the interview recruiters set specific criteria, in particular the knowledge and skills required to do the job. The criteria can be split into levels depending on their weight in relation to the job and applicants are scored against each one. Rees and Porter (2003) suggest that structuring thinking in this way enables the employer to focus on the qualities that are essential for doing the job well and it provides a more objective assessment of the candidate's soft skills.

The study further found out that recruiters ask questions that measure attitude (13.6 percent), behavioural aspects (13.6 percent) and decision making (13.6 percent). In terms of firms' representation, 67 percent of the decision-making questions are asked by auditing and oil

trading companies (33 percent); 25 percent of the behavioural aspect questions are asked by mining firms, oil trading companies, the public sector and schools; and for the attitudinal questions, half are asked by oil trading firms, (33 percent) by auditing firms and (17 percent) by schools. Regarding problem-solving questions, 50 percent are asked by auditing firms and 25 percent by both mining and recruitment agencies. According to Yorke and Knight (2004), problem solving involves an individual's ability to develop a creative, innovative and practical solution across a range of areas. Problem-solving questions therefore enable employers to discover an individual's ability to come up with a well-thought out practical solution to a problem. There is also a link between internship (experiential learning where students interact with professionals and community members) and an individual's problem-solving ability (Gronski and Pigg, 2000). Through the process students use their technical skills to solve real-life problems across disciplines. Indeed, experiential learning programmes not only enhance problem-solving skills but also decision making, planning, communication and creativity (Bobbit, Inks, Kemp, and Mayo, 2000), which are the skills mostly demanded by employers.

### **2.7.2 Employers' expectations of the interview**

The study further shows that the interview gives employers the opportunity to find out what skills and knowledge graduates possess and how they can add value to the organization. The top ranked skills are communication (90.9 percent), knowledge about the company including value addition (72.8 percent) and adaptability or flexibility (50 percent). Graduates also need to demonstrate good interviewing and presentation skills and a good command of the English language. To illustrate this one HR commented, *"Some students have got higher GPA and therefore hard work is recognized if you pass well and this guarantees a good job, but graduates need to demonstrate this and convince the employer of such high pass marks. Individuals' academic qualifications and their ability to convince employers that they belong to them and they have achieved them are important"* (66\_Manufacturing). Indeed, *"... one is not bound by job descriptions, but rather seeing beyond what is expected... one needs to advise on the areas that are critical. We need people who can challenge the status quo, contribute and add value to the institution. As regards personal expression, one needs to express oneself and represent the institution outside"* (9\_School).

According to Gardner et al. (2005), communicating effectively through writing and self expression is a valued skill that increases employability. New graduates that can articulate and express ideas persuasively and ask questions to obtain information are more productive and efficient in the work environment (Gray, 2010).

As regards adaptability, adaptable individuals not only increase organizational performance (Crant, 2000) but also demonstrate success in their future career (Pulakos, Arad, Donovan, and Plamondon, 2000). According to Ashford and Taylor (1990) and Chan (2000), adaptable people are willing and able to change their personal factors (i.e. KSAOs - **K**nowledge, **S**kills, **A**bilities and **O**ther desirable work characteristics), dispositions and behaviour. They also remain productive and attractive to employers in continually changing work domains (Fugate et al. 2004 (pg. 21); Chan, 2000). Personal adaptability, as advocated by Ashford and Taylor (1990), signals employability prospects. It also has a positive influence on the identification and realization of work opportunities as advocated by Fugate et al. (2004), which is why employers demand adaptable workers.

Behavioural aspects during the interview, in particular body language and dress code, are also given consideration. Additionally, applicants need to make an impact in the course of their conversation and show their ability to learn. As one Human Resource Manager explains; *“When you work as a human resource officer, you learn a lot about psychology. When an interviewee comes in, just by looking or asking a question you understand the person. The problem with recent graduates is that they do not know what an interview is, and how to conduct themselves before and during the interview”* (13\_Manufacturing firm).

According to Johnson and Roach-Higgins (1987), appropriateness of what is worn at the interview affects a recruiter’s impression of the job applicant, not only as regards competence but also the individual’s independence and creativity. Dress code also affects personal attributes such as attitude, values and beliefs as well as self-directed behaviour (Damhorst, 1990). Research further shows that individuals describe themselves in a way that is consistent with how they dress and so the dress code influences individuals’ thoughts and how they interact with others in all contexts (Rudd and Lennon, 2000; Lee and Johnson, 2009). As well, individuals’ competence and personal values positively influence work and organizational performance (see Ahmed, 2009 pg. 299 as quoted from Boyatzi, 1982) and this is the reason why employers focus on such behavioural aspects.

Employers are also interested in people who understand their business and in particular know about the products and services they offer and general information on the activities of the organization including the post applied for. For instance, business acumen (the ability to understand clients' business in relation to the industry) needs also to be demonstrated during the interview. Through this, employers can assess whether individuals understand what the organization wants to achieve through its products and services and how it competes in the marketplace. Employers also assess individuals' understanding of the organization's major competitors and how they differ from each other. According to Turban et al. (1998) and Barber and Roehling (1993), knowing about the industry in which the organization operates is a sign that an individual is interested in working for the organization and is able to develop a career within it. As one staff partner narrates: *"We need graduates with the right attitude, willing to learn, eager to grow, with the right business acumen, better in terms of knowledge than our clients.... Auditors have to understand the business/entity/industry in which the firm they are auditing operates.... But at times we do not get what we want. New graduates do not have the required competencies. I am ready to get more, but there are few with the right attitude and acumen"* (16-17\_Auditing firm).

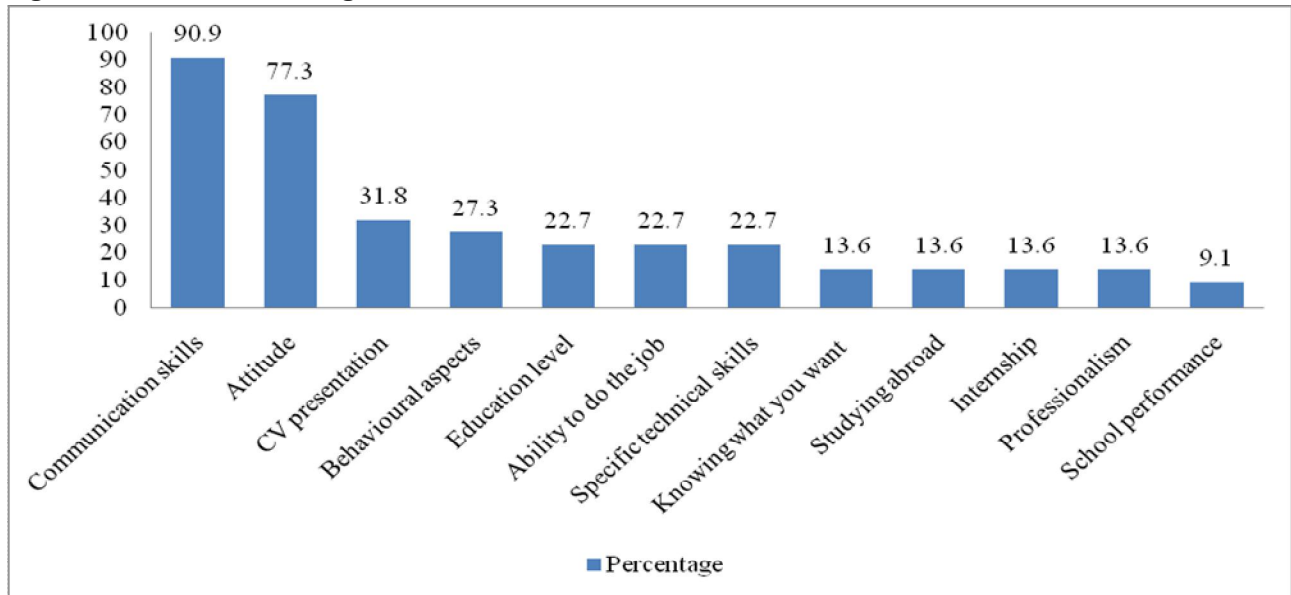
Other important aspects that employers focus on during the interview process are shown in Appendix C, most of them falling into the broader aspects of employability skills advocated by Yorke and Knight (2004). Overall, during the interview process employers focus on individuals' attributes and personal factors and how they will fit into the work culture and promote further the organization's goals.

### **2.7.3 Factors that influence the recruitment process**

The study explored employers' views on the factors that influence the recruitment process as shown in Figure 2.6. In order of preference, the factors include communication skills (90.9 percent), positive attitude (77.3 percent), CV presentation (31.8 percent) and behavioural aspects (27.3 percent), with most of these factors assessed during the interview. Communication skills involve one's ability to market oneself fluently and confidently, as one of the human resource managers narrates: *"People have very good certificates but we do not employ certificates. We look for the ability of a person to translate the certificate or what has been learned into action. Certificates are there to back up... beauty and books have to go together"* (25\_Telecoms). *"We*

*need people with the ability to sell themselves. Interviews are a turning point. If you cannot sell yourself it is useless” (39\_Recruitment agency).*

**Figure 2.6. Factors influencing recruitment decisions**



**Source:** Interview findings (2012)

Positive attitude has to do with the ability to be ready to learn and as an entry job applicant the willingness to start at any level and/or any cadre. Other attributes that fall under attitude are the ability of someone to take on things one at a time and the belief that it takes time for one to develop a career and in the process one has to learn and adapt to the world of work. Judge and Kammeyer-Mueller (2012, pg. 343) define attitude as an individual’s disposition towards work, which has a positive effect on an organization’s performance, a view that is also supported by Saari and Judge (2004). According to Ferret (2012), a positive attitude enables individuals to cope with stressful situations at work and turn a challenge into an opportunity. Individuals with a positive attitude can also inspire and motivate themselves and others. It is also believed that people with a positive attitude are seen as role models and since it is contagious employees around them adopt a positive attitude to work, making it easier for everyone to get along in the workplace (Nauta et al. 2009). This is why employers look for people with a positive attitude.

Regarding CV presentation, a study by Lowden et al. (2011), for example, stresses the importance of creating a good first impression through the CV. However, many graduates appeared to lack the skill and motivation to impress employers during this initial stage.

Additionally, graduates do not devote quality time to preparing their CV, let alone gearing it to impress a particular employer. According to Tixier (1996), the information offered by applicants in the CV enables the employer to match individuals' competencies with the job advertised and to see how they fit into the culture of the organization. Through the CV therefore, employers obtain first-hand information about the job applicants and so it is regarded as important for making a recruitment decision.

Employers also assess behavioural aspects during the recruitment process. For example, personnel assessment tools and instruments such as personality tests and assessment centres are aimed at measuring an individual's behaviour, personal skills and work performance (Rees and Rumbles, 2010; Sackett and Lievens, 2008; Lievens et al. 2002). This is because the information gained from testing enables recruiters to make career or employment-related decisions. In assessment centres, for example, candidates' behaviour, such as ability to work in a team, their interaction with others or ability to demonstrate leadership skills, may be evaluated during group discussions (Tixier, 1996; Arthur et al. 2003). Additionally, in role-play exercises, where candidates are required to provide a solution to a hypothetical problem or suggest a course of action, candidates are evaluated on the behaviour displayed, solutions provided and the advice given. Furthermore, and according to Branine (2008), employers use aptitude and personality tests as they allow for individual differences between other applicants to be explored. They are also regarded as less costly, easy to use and relatively fair and accurate in measuring individual skills (Branine *ibid*).

The study also establishes level of education (6.2 percent) as another factor which influences recruitment decisions, in particular whether one has obtained a university degree or equivalent qualification and possesses a professional qualification. According to Hirsch (1977), employers prefer job seekers with the lowest training costs. This is because, education is regarded as a positional good and it predicts an applicant's expected training costs. A study by Barnard and Nel (2009) however provides mixed results. On the one hand, some employers do not distinguish between university graduates and those with lower-level qualifications in terms of their skills and knowledge. Additionally, employers view degree graduates as more academically oriented and that they take longer to adapt to the working environment. This can be attributed to them having less exposure and lacking practical work experience during their studies (Lowden et al. 2011). On the other hand, employers see a difference in personal attributes whereby graduates

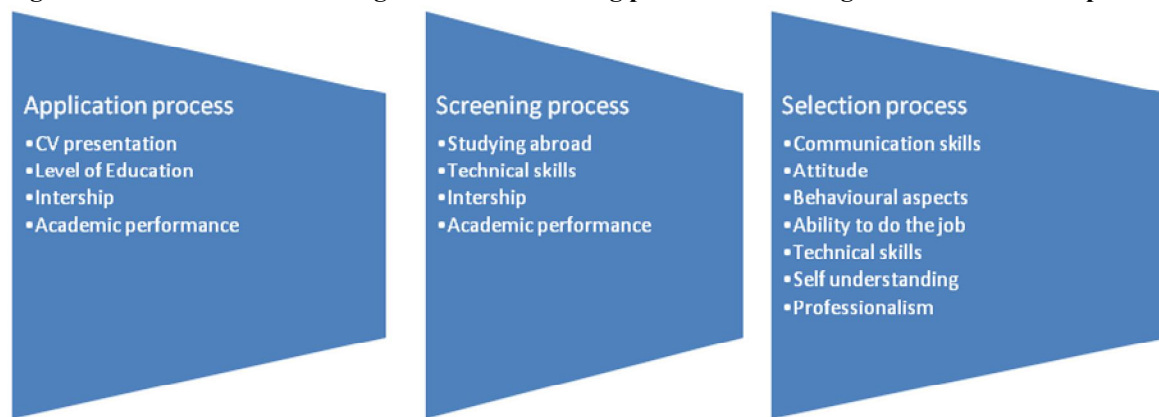


behave more professionally in the work environment and can operate better in the human relations environment, particularly with regard to clients, workers and managers. In this regard and in relation to the study findings, the level of education matters since it enables applicants to behave more professionally in the world of work. This could also be the reason why professionalism (13.6 percent) was also established in this study as a major recruitment decision factor.

Other factors that influence recruitment decisions include the ability to do the job (6.2 percent), basic technical knowledge (6.2 percent) and school performance, which was found to be the least important (2.5 percent). Similar views are held by Tan and French-Arnold (2012), who state that although employers listed qualifications as an important requirement for employability, attitude was regarded as more important than qualifications and so a high grade point average does not guarantee recruitment and employability. Canny (2004) also offers a similar explanation that employers overlook the lack of qualifications if young adults demonstrate a positive attitude. This is because graduates with the right attitude can work in many different jobs and industries throughout their career and they seek to constantly improve and update their skills and learn new technologies in order to deal with the realities of the workplace. This view is also supported by Tan and French-Arnold (2012).

Regarding the ability to do the job, employers look not only at individuals' ability to do the job but also to work independently and as a part of a team. Other employers require job applicants to provide proof of technical expertise and if this is lacking, applicants prove their value by indicating what they have done in other contexts and/or how the job's requirements were fulfilled during previously held positions (Tixier, 1996). Studies also show that students' placements and in particular internships and fields works enable them to get work experience, work related skills including employability and the employers working culture (Taylor, 1988; Yorke, 2011; Lowden et al. 2011; Nagarajan and Edwards, 2014). Indeed, some employers prefer working with interns, since internship, also reflected in this study (13.6 percent), is regarded as useful to graduates for securing a job (Tan and French-Arnold, 2012). This study further categorized the factors in each stage of the recruitment process as shown in figure 2.7. Although the factors overlap, all the attributes play a role in each stage of the recruitment process.

**Figure 2.7. Main factors affecting the decision-making process in each stage of the recruitment process**



**Source:** Study findings

## **2.8. Discussion**

The study addresses the research question about how corporate recruiters make decisions when recruiting new graduates. Specifically, the study seeks to answer the following questions. What recruitment strategies do recruiters use to obtain qualified and employable new graduates? What screening criteria and selection tools do recruiters use during the recruitment process? The results show that almost all recruiters receive drop-in CV's and use more than one recruitment channel. The recruitment channels most used are graduate recruitment programmes, internal recruitment, database of interns and the media, particularly newspapers.

According to Keenan (1995), AGR (1995) and Ryan (1996), graduate recruitment programmes and university career talks were more often used over the past to search for potential graduate employees. Branine (2008), for example, found out that less than 45 percent of UK graduate employers use graduate recruitment programmes, compared with 54 percent reported by Keenan (1995). Literature on the use of internet as a recruitment channel has been growing (see Brencic and Norris, 2012), given the limitless power of free online text data in searching for the labour market job opportunities. For example, a study by Barnichon (2010) shows that the most important recruitment and job search channel is the internet, which in this study is the third least important.

Comparing the study findings with other countries, Henkens et al. (2005) in their study of employers recruitment channels in the Netherlands established that the most common traditional recruitment methods were the unsolicited or drop in applications (85 percent) and newspapers (84 percent). The use of newspapers has also been established in the US over the past two

decades (Marsden, 1994). Although there is not much literature on the evolution of recruitment channels in the Tanzanian context, traditional recruitment channels are mostly used. There is also a growing trend in the use of the internet, which is the channel most used by recruiters worldwide (Branine, 2008; Henkens et al. 2005; Parry and Tyson, 2007). The study by Henkens et al. (2005) also reveals internship (77 percent) and the internet (one-third) as other recruitment methods however, 45 percent of employers do not use the internet as a recruitment channel.

In the UK, Parry and Tyson (2007) undertook a longitudinal survey over a period of six years to analyze the trend in the use of the internet as a recruitment channel. The findings show that the use of internet as a recruitment channel by both employers and job seekers has revolutionized the traditional forms of recruitment, a view also shared by Starcke (1996) and Priyanka (2014). Indeed Quick (1998) and Boehle (2000) in their study revealed that there had been a drop in expenditure in newspaper advertising by 20 percent in the US due to an increase in the use of the internet for recruitment. Parry and Tyson's (2007) study further shows that although firms use online methods such as company and commercial websites they are not regarded as successful as other recruitment channels, such as recruitment agencies. Additionally, online methods generate a large pool of job applicants, a high proportion of them being unsuitable for the position advertised. Studies indicating the trend in the use of graduate recruitment channels in Tanzania are limited and so the study suggests this as an area for further research.

The results also show that formal channels are used more than informal ones when recruiting new graduates and these are recommended to be more appropriate given their limited networks with the labour market (Hogarth and Wilson, 2003). Formal recruitment channels, such as advertising in newspapers and on company websites, are preferred due to their wider outreach and transparency (Henkens et al. 2005) and are mostly used by both employers and new graduates to meet their job needs (Archer and Davison, 2008; Parry and Tyson, 2007). According to Lindeboom, Van Hours and Renes (1994) and Mortensen and Vishwanath (1994), informal contacts and advertisements are successful search channels in linking those who want to change their jobs with vacancies and in recruiting for jobs with higher wages. Additionally Devins and Hogarth (2005) argue that when informal methods are used, those without contacts in the workplace, the unemployed and some inactive groups are unlikely to hear about job opportunities and are therefore disadvantaged. According to Canny (2004) informal strategies

limit the diversity of the workforce and this is overcome when formal channels are used and this justifies the study findings. Although formal recruitment channels lead to a large pool of applicants, such channels lead to a perfect match between firms and job applicants (Russo et al. 1996) and this diversifies the firm's workforce (Canny, 2004).

The study results also indicate that the nature of the service determines the recruitment channel. While internal recruitment, particularly word of mouth, is common in recruitment agencies, a career talk is common in auditing firms and a graduate recruitment programme is common in telecoms companies, oil trading companies and the mining sector. Advertising in the media is common for government posts and internships are common in banks and manufacturing industries. Most banks also have a partnership with some universities. This confirms a study by CIPD (2005) on the nature of the business in relation to the recruitment channel selected.

Most of the recruiters use more than one screening and selection tool, with the interview used by all. The commonly used tools, in order of preference, are academic performance, subject specialty, interviews and assessment centres. According to Tixier (1996), assessment centres given their cost implications are specifically used by large and multinational companies. Although limited literature is available on the order of preference of the screening and selection tools, studies by Stewart and Knowles (2000) and Branine (2008) show that a range of methods is used during the recruitment and selection for first-entry jobs, with interviews dominating. Additionally and as Taylor (2005) recommends, the use of various selection methods gives the best results since they allow individuals to shine in different areas where they may have personal preferences.

During the interview employers ask questions on various aspects, both related and unrelated to the study discipline. Since most new graduates lack or have limited work experience, engaging in Employability Skills Development Programme (ESDP) activities, such as volunteering and professional clubs, enhances their ability to acquire and demonstrate related work skills. For example, a study by Tixier (1996, pg. 71) argues that some European countries, such as Switzerland and the UK during the interview, request applicants to provide information on the responsibilities they have had in the course of their studies, such as leadership roles (being a group leader, a prefect or sports captain), belonging to clubs and volunteering activities. According to Tixier (1996), such activities demonstrate an individual's interest in the surrounding community and the ability to execute some roles at work. Employers value attributes

such as flexibility, adaptability to work, cultural fit, ability to demonstrate leadership skills and confidence. According to Sackett and Lievens (2008) such qualities enable graduates to cope with the demands of a competitive business environment.

The study therefore establishes that communication skills, positive attitude, CV presentation and behavioural aspects are the top attributes that influence recruiters' recruitment decisions when recruiting new graduates. Other attributes include technical skills and the ability to do the job. The study results echo those of Karplan (2014) which, show that the ability to communicate is the most important competency employers look for when recruiting. Karplan (2014) further reveals that employers recruit graduates with the right attitude, who are willing to acquire technical skills and other competencies either on the job or through obtaining further professional qualifications. In terms of percentages, the Karplan findings show that during the recruitment stage a higher percentage of employers look for effective communication (73 percent), numeracy (64 percent) and team player with the latter more applicable given the nature of company's business (61 percent). The lowest ranking competencies looked for by employers include decisiveness (19 percent), leadership (23 percent), assertiveness (24 percent), critical thinking (27 percent) and technical knowledge (29 percent).

To summarize the study findings and in relation to the major themes (see appendix C for further literature), once applicants submit their applications, the CV is the major tool used to short-list applicants, where both soft and hard skills are assessed. Although both skills are further assessed during the interview, soft skills form the basis for selecting the best candidates. Lastly, and based on the study findings, the following propositions are made:

**Proposition 1:** There is a growing trend in corporate recruiters attracting applicants from any field of study, with new graduates fulfilling selection criteria, irrespective of the study discipline, being more likely to be recruited by any recruiter. This supports the growing trend in a non-linear relationship between occupation and field of study, a view supported by Elias and Purcell (2004), Marinescu and Wolthof (2012) and Longhi and Brynin (2009). Although in some occupations specific qualifications and skills are of vital importance, a survey by Graduate Prospects (2005/6) identified that two-thirds of graduate vacancies are open to graduates of any discipline and the remaining one-third are for those with subject-specific knowledge, understanding and skills. This indicates that employers are more interested with graduates' soft

skills acquired in the course of their studies. In this regard and irrespective of what they studied, graduates possess a broader range of skills (analytical, research, organizational and communication) that can be transferred across different occupations (Elias and Purcell, 2004; Gregory, Healy and Mazierska, 2007). Indeed and as Mason et al. (2003) comment, attention has been given to improving the teaching of employability skills to prepare graduates for the workplace, regardless of whether or not their employment is directly related to the subject they studied.

**Proposition 2:** Depending on the nature of the service, different screening and selection tools are used by recruiters at different stages of the recruitment process. Graduates who are knowledgeable about multiple tools are more likely to be recruited by corporate recruiters than graduates who are less knowledgeable. In this regard, besides possessing a university degree, graduates also need to learn about job search strategies, interviewing skills, as well as the screening and selection criteria used by various recruiters. In this study both formal recruitment channels (such as CVs or application forms, graduate recruitment programme, the media, the internet or online platform and career talks or job fairs) and informal recruitment channels (such as internal recruitment, interns, partnership with universities both within and outside the country) are used by recruiters during the recruitment process. According to Elias and Purcell (2004), graduates need to be familiar with job search strategies.

This information can be available from different sources, in particular career and advisory services (available at the universities), recruitment agencies (where they can apply for jobs), publications (such as newspapers and internet sources) and networks (which involve networking with university faculty, work professionals, family and other social networks). Such sources enable graduates to make a smooth transition into the competitive labour market. Although career guidance and support services for graduates entering the labour market have been increasingly recognized as important (Harris 2001), their use and usefulness varies, according to social class, background, age, subject and institution of study. For instance, Elias and Purcell (2004) investigated the extent to which graduates utilized the various sources of information and the extent to which they considered them to have been useful to their career and employment prospects. The study establishes that networking with university faculty, work professionals, family and social networks is most useful in relation to employment prospects.

The study by Elias and Purcell (2004) further establishes that although career advisory services are the second most commonly used as a source of information, almost half of the graduates found the information obtained from the same not useful. This is partly due to the growth of non-graduate occupations unfamiliar with such advisory services, which means that these services need to keep themselves up-to-date with new developments in the graduate labour market so that they can provide useful information to graduates (Elias and Purcell, 2004).

Following the growing trend in the employment of graduates in non-traditional occupations (see Elias and Purcell, 2005), and to prepare students for work after graduating, Tan and French-Arnold (2012) recommend that all HEIs provide their students with information about the labour market and the less popular careers available for graduates. According to Perrone and Vickers (2003), most students lack concrete ideas as regards life expectations beyond university, therefore a continuous career support can enable them realize labour market realities. Career management skills can also be integrated into university courses from the elementary year and reinforced by constant input and feedback from faculties, industry and students (Tan and French-Arnold, 2012, pg. 56). Since employers of graduates vary in terms of knowledge, the skills required and the sector, the partnership between employers and academic institutions should extend beyond the industry or specific sector to include employers such as NGOs, non-profit groups and other private sector organizations (Tan and French-Arnold, 2012) because each sector has its own recruitment strategy, job requirements and employability demands. This justifies the reason as to why employers focus on the experiences obtained from the aspects not taught in school.

**Proposition 3:** Interviews assess questions demanding basic technical knowledge, process skills (problem-solving skills) and personal qualities (attitude and behavioural aspects). New graduates who can use their informal experience to demonstrate possession of such skills are more likely to be recruited by corporate recruiters. In this regard, informal experience is obtained by individuals engaging in activities outside the formal curriculum, such as family activities, peer-work interactions and the community (Stuart et al. 2011). Although it is hard to state clearly when and where employability skills are acquired, research argues that they are acquired both within HEIs and in other social institutions such as the family and work environment (Little et al. 2008; Green and Henseke, 2014). For example, although a study by Vilka and Pelse (2012) did not indicate

how the formal curriculum develops these aspects, it argues that the knowledge acquired at school is not always the decisive factor as regards employment opportunities. For instance, individual factors such as strength, patience, self-discipline, self-reliance and motivation, which may influence employment opportunities, are developed in the long-term work socialization process. According to Vilka and Pelse (2012), the socialization process begins before formal education and continues throughout an individual's life. Additionally, without socialization such habits not only depreciate over time but they also depreciate faster than an individual's ability to restore them.

Similar views are presented by McQuaid and Lindsay (2005), who add that employability is the function of essential attributes (such as integrity, personal presentation, willingness to work, positive attitude to work and responsibility) and personal competencies (such as proactiveness, diligence, motivation, initiative, assertiveness and confidence). According to them, these are the basic factors that enhance employability capacity and are developed in the course of work socialization and particularly the work culture, where work is encouraged and supported within the family, among peers and other personal relationships in the wider community. Cohen-Scali (2003) also argue that work socialization starts in childhood and is enriched not only during adolescence and throughout adulthood but also through professional training courses where new values are acquired.

**Proposition 4:** Recruitment is a function of the application, screening and selection process. Selection criteria and in particular employability skills and attributes that employers assess during the interview are the major factors that influence recruiters' decision to recruit the best applicant. In this regard, structured and unstructured interviews are used to assess individuals' possession of the required skills, a view that is supported by Dipboye (1994). In the structured interview, information on the knowledge, abilities and skills required for the job form the basis for making the recruitment selection decision. In the unstructured interview approach, interviewers rely on their beliefs about the attributes and skills of the qualified applicant and these beliefs are often unique to the particular interviewer. Building on Dipboye's (1994) view of mixing the two approaches, the choice of applicants is highly subjective and in the process interviewers are guided first by their personal views of what is required by the job, and second by a vague impression of how the person fits into the culture of the organization in terms of the



required skills and in other instances the rule-of-thumb is applied. Accordingly, the Beach (1990, pg. xiii) framework for describing decision making in the unstructured interview posits a similar view, adding that most decisions are made on the basis of fittingness and only in particular circumstances are they made on the basis of cost-benefit analysis as applied in classical decision-making processes.

Summing up, the findings support the current literature that soft skills are of greater importance than technical skills during the recruitment process. These views are also supported by literature (see Evans and Kersh, 2004; Fan, Xiangdong and Junsen, 2005; Heckman and Rubinstein, 2001; Sumner, Bock and Giamartino, 2006).

## **2.9. Conclusion**

The study adds to the current understanding of the recruitment methods, tools and selection criteria used by recruiters to recruit new graduates in the Tanzanian context. The methods vary among different sectors and businesses. Although informal recruitment channels are used, most firms use formal channels to attract new graduates, the leading ones being CVs and application forms. Similar findings are established by Tixier (1996) that the CV or employment form is applicable across Europe but variations exist among countries. For instance, while 93 percent of companies in Ireland and Great Britain use it, it is rarely used in Denmark and Sweden. However, employment application forms are frequently filled out by job seekers in Italy, Spain, The Netherlands, Belgium, Portugal, Switzerland, Austria and Greece, which is the case in this study. A study by Tixier (1996) adds that application forms vary among sectors and institutions in terms of names, the content, language and target group, although some have a standard format. Shackleton and Newell (1991), for example, established that the standard form is commonly used by Irish recruiters. In other instances, the applicant's photo appears on the application form where it is also the norm to put it on a CV. Since exploring different types of employment forms and CV attributes was not within the scope of this study, the study proposes that this could be an area for further research.

This study also established that several screening tools and criteria are used before graduates are recruited by a specific recruiter. The findings on variations among the screening tools and selection criteria provide graduates with various information on the recruitment process. First, the study provides information on what is expected of graduates during the recruitment

process and, in particular, the recruitment channels available to them. Second, the study provides information about the firms where graduates can secure employment and the nature of the skills demanded by various firms and sectors. Finally, the study provides information about the tools and criteria that need to be adopted at each stage of the recruitment process so that graduates can make a smooth transition into the labour market. The tools might be applied to graduates at other levels of education. The study also establishes that, regardless of the recruitment procedure, the final decision of most firms is based on the interview.

In relation to other studies, particularly as regards the final recruitment decision being based on the interview, a study by Dipboye (1994) argues that the recruitment process, which involves selection, placement and promotion decisions, takes account of several sources of information on applicants, such as application forms, references and tests. Regardless of the recruitment processes, the interview is its core component. Dipboye (1994, pg. 81) further adds that information obtained from other procedures influences the final decision only after it has been filtered by the recruiter. The literature also supports that the role of the interview is decisive during the recruitment process (see American Society of Personnel Administration, 1983; Blocklyn, 1988 and Shackleton and Newell, 1991).

Given a higher number of graduates released into the labour market, the process of recruitment has become more stringent and there is a growing trend in using aptitude tests to measure personal qualities, which were less commonly used (Branine, 2008, pg. 497). This study establishes that the use of aptitude tests varies among firms but they are commonly used by multinational companies given the large number of applicants and the relatively low cost in administering them. This view is supported by Tixier (1996) and Erasmus (2005). Tixier (1996), for example, established that although the use of tests varies among sectors and professions, and even types such as psychological and intelligence tests, all European countries use tests during the recruitment process. The study further indicates that Germany and the UK use these tests the most, followed by Ireland, Sweden, Austria, Belgium, The Netherlands, Denmark and Spain (Tixier, 1996, pg. 78). There is also a variation among countries in the use of psychological and intelligence tests. Since the study did not explore the nature and types of recruitment tests and their application among sectors and professions, it also proposes this as an area for further research in the Tanzanian and other contexts.

Although recruiters receive a large number of applicants, getting the right candidates is challenging and this means that recruiters need to use several criteria to get the right ones. This study establishes that recruiters value attributes such as communication skills, attitude and behavioural aspects that are accumulated both within and outside the core curriculum. This study categorizes these outside activities as ESDP activities that include all forms of extra-curricular activities, work-based learning and personal development programmes. Therefore university students need to engage in a variety of ESDP activities, which not only develop their work experience, but also enhance the development of soft skills more demanded in the world of work.

In terms of limitations, the study addresses corporate recruiters in Tanzania, most of whom use formal recruitment strategies, limiting generalization of its findings to other contexts. Additionally, since the sample selection was purposive, due to the nature of their structure some sectors could not allow the selection of more than one respondent. A further study can therefore be conducted with a large sample of employers using quantitative research to allow for generalization of the study findings. However, the study provides the basis for further discussion and is a link to further research work on the recruitment of new graduates in this era.

## **Chapter 3**

### **Assessing the status of Entrepreneurship courses in Higher Education Institution: the case of Tanzania Schools of Education**

#### **3.1 Introduction**

With the emergence of entrepreneurship as an academic field, a significant number of entrepreneurship courses have been introduced worldwide. There has also been growing diversity in the courses offered in terms of content and depth from general business planning to specific entrepreneurship courses and postgraduate programs (Solomon, 2007; Matlay, 2008). An assessment of the trend reveals that most entrepreneurship courses were offered in business schools but now there is a growing trend of offering them in non-business schools too (Hynes, 1996; Gerba, 2012) and they are now included in the curriculum for school teachers as well (EU, 2011). Entrepreneurship education is needed to address a growing range of contemporary socio-economic and political challenges (Gibb, 2002; Henry, et al. 2005) and is therefore relevant for students in all disciplines.

Studies on entrepreneurship education have focused on progress in Entrepreneurship Education (Vesper and Gartner 1998), the status of entrepreneurship being taught to business students in the UK and US, respectively (McKeown, Millman, Sursan, Smith and Martin, 2006; Solomon 2007), indicating the diversity of courses in terms of content and methods. Cheng, Chan and Mahmood, (2009) assessed the state and effectiveness of entrepreneurship education in Malaysia in terms of business and non-business studies and the study findings indicate a low level of understanding of entrepreneurship among students. Studies in the African context, including those by Co and Mitchell (2006), Kabongo and Okpara (2010), and Gerba (2012) show that entrepreneurship education in Africa is at the development stage and is offered in business schools, with a few initiatives in non-business courses. The studies suggest the need to incorporate entrepreneurship education in all disciplines, to improve teaching and assessment methods and to enhance the capacity of academic staff involved in teaching entrepreneurship. Studies assessing the extent to which entrepreneurship courses are taught in non-business courses and particularly in schools of education are lacking (Seikkula-Leino et al. 2010).

This study addresses this gap by assessing the extent to which entrepreneurship courses are taught in Tanzania Higher Education Institutions (HEIs) in schools of education. A school of

education is a division within a university that offers programs in the field of education. This includes provision of professional teacher-education programs, which is the focus of this study. The study explored the courses taught in terms of content, teaching and assessment techniques and the initiatives taken by schools of education to ensure that prospective teachers develop entrepreneurship knowledge and skills. Since teachers form the basic part of the entrepreneurial setting (Mason and Terrence, 1999), they need to acquire entrepreneurial competencies and the methods to develop them. Provision of entrepreneurship course in schools of education facilitates the development of entrepreneurs in the education system and will reduce the capacity gap of entrepreneurship teachers at lower levels (primary and secondary) in the long run.

Literature was reviewed to establish the state of the teaching of entrepreneurship, particularly the courses, content, facilitators, teaching methods and assessment techniques. Prior studies on the status of entrepreneurship education, such as those of McKeown et al. (2006) and Solomon (2007) provide the framework for the current study reflecting the Tanzanian context. The findings show that all schools of education observed in Tanzania have an entrepreneurship module in the Development Study (DS) course, which is mandatory for all first-year students. From 2008 to date, there have been initiatives to introduce stand-alone entrepreneurship courses in schools of education at undergraduate level, reflecting in their title entrepreneurship. The majority of education schools are planning to introduce entrepreneurship courses at undergraduate and postgraduate levels. Though entrepreneurship educators demonstrate the mastery of the subject matter in terms of knowledge and specialization, they use traditional teaching and assessment techniques, thus the results conform with those of McKeown et al. (2006) and Solomon (2007).

The study contributes to the still ongoing and further developing discussion on entrepreneurial teaching and education at the university level for professional teachers. Thus, professional teachers are the target group of these courses to learn and understand to teach students too. The study has practical implications for the schools of education management, entrepreneurship educators and education students, the prospective teachers. Initiatives taken by the schools of education management to make entrepreneurship part of the curriculum can also be applied in institutions where entrepreneurship courses are not offered.

The rest of the paper is structured as follows. Section two describes the study context. Section three reviews the concept of entrepreneurship and how it can be taught. Section four

gives an overview of the study methodology. Section five discusses the study results. The last section presents the limitations, policy implications and conclusions specifically for the Tanzanian context but may be generalized to most economies faced with limited entrepreneurship initiatives in schools of education.

### **3.2 The context**

Tanzania is the largest country in the East African Community (EAC) with a population of 44 million people (URT, 2012), of whom 44 percent are aged 0-14. Besides being endowed by natural resources, youth unemployment rate was at 15 percent according to the country Labour Force Survey (URT, 2009). So, entrepreneurship education has been earmarked as one of the strategies for empowering the population to tap on the available resources and to lower this high youth unemployment rate (Nkirina, 2010). In this context, the government sees education institutions as a critical factor in generating ideas and entrepreneurial talents (Collins and Robertson, 2003), with an emphasis on the role of teachers in the process.

The introduction of entrepreneurship courses in Tanzanian education institutions became the ideal in the mid-80, the era that was characterized by the liberalization of trade, privatization of parastatal and retrenchment of workers. This resulted in a high unemployment rate among graduates as the majority could not compete in the labour market (Nyerere, 2001). As a result, some elements of entrepreneurship were incorporated in the curriculum as highlighted in various country policies (United Republic of Tanzania (URT), 1995; URT, 2003; URT, 2008) with the aim of promoting entrepreneurship training programmes at all levels. While the first course in entrepreneurship was offered in the US in 1958 (McMullen and Long, 1987) cited in Solomon, Duffy and Tarabishy, 2002), the first entrepreneurship course was offered in Tanzania at the Faculty of Commerce and Management (now the University of Dar es Salaam Business School) in 2000. In schools of education, an entrepreneurship course was offered at the University of Dar es Salaam and one of its constituent colleges in 2008.

At lower levels, entrepreneurship courses were introduced in Vocational Education and Training centres in the mid-90's (Nkirina, 2010). The government further strengthened institutions, particularly the University of Dares Salaam Entrepreneurship Development Centre (UDEEC), which offers consultancy services to SMEs on related issues and the College of

Business Education (CBE), which offers business training and entrepreneurship development with most of these initiatives established in the late 1990s (Kaijage, 1997).

Despite these initiatives, limited impact has been realized in attaining the objectives of entrepreneurship education at the national level. In examining entrepreneurial orientation among students at Vocational Training Centres, for example, Olomi and Sinyamule (2009) found that although students had taken entrepreneurship courses, it had neither a significant effect on start-up inclinations nor did it enhance the perceived chances of getting a job. Kilasi (2011) also assessed the role of higher education in promoting entrepreneurship education across disciplines in Tanzania. The findings show that entrepreneurship is widely spread in terms of centres based in business schools and as an 'add-on' to non-business courses. The major challenges are however unclear strategy for incorporating entrepreneurship teaching across faculties, insufficient resources, including knowledgeable facilitators and a narrow understanding of entrepreneurship education among different stakeholders. Sabokwigina (2008) also provided similar conclusions. Thus, the process of embedding entrepreneurship in institutions may need more time and new ways of raising awareness, one being training prospective teachers in entrepreneurship as a subject (Seikkula-Leino et al. 2010).

### **3.3 A review on the concept of Entrepreneurship**

The ongoing debate in the field of entrepreneurship is concerned with the definition of the term entrepreneurship. Over the years, as Wortman (1986) stated, the field experienced quite a few positive movements towards a commonly accepted definition of entrepreneurship and the boundaries of the field. According to Hytti and O'Gorman (2004), definition determines course objectives, target audience, course content and teaching methodologies.

EU (2011) defines entrepreneurship as

*The individual's ability to turn ideas into action; it includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity (pg. 50).*

Similar views on the meaning of entrepreneurship are held by Gibb (2002) that, an entrepreneurship education programme should aim to develop and enhance these entrepreneurial abilities. The study adopts this definition because Tanzania needs this kind of educated people in order to, first increase the number of self-employed and entrepreneurs in the workforce and second, to develop these skills for potential employees given their role in enhancing employability.

More recently, a study by Mwasalwiba (2010) found that scholars in the field are converging towards a single framework of entrepreneurship education, whereby there has been a shift from the start-up view to an attitude-changing perspective of entrepreneurship education. Following the changing views on entrepreneurship, Fayolle and Klandt (2006) argue that entrepreneurship should be viewed from a broader perspective and not limited to the traditional view focusing only on business creation. The new view proposes that besides teaching on specific situations like new venture creation, entrepreneurship education should enhance the target to develop a broader skill set such as entrepreneurial behavior and mindset or attitude.

Another debate is on whether entrepreneurship can be learnt and how it should be taught. On the one hand, psychological theories explain entrepreneurs using certain personality traits, for example, need to achieve (McClelland, 1961), risk taking (Brockhaus, 2004) and internal locus of control (Kets de Vries, 1993) that differentiate entrepreneurs from the non-entrepreneurs. In this context, entrepreneurs have a unique instinct, mindset and vision, which cannot be transferred from one person to another. This line of thinking leads to the commonly held view that entrepreneurs are born and hence there is little logic in teaching someone entrepreneurship since entrepreneurs are a specific breed. This view has however been criticized as, for example, empirical validations by Frank, Lueger and Korunka (2007) show that the importance of personality traits among entrepreneurs decreases in the course of new business development. Moreover, individuals often change occupation over their life time resulting to turnover. Occupational turnover may result from difficult situation at individual level, dissatisfaction with work and the state of economy like increased global competition (Sorgner and Fritsch, 2013; Green, 2006; Muffels, 2008). This makes it important for an individual to learn new knowledge and skills.

On the other hand, a review of empirical studies shows that education plays a significant role in inculcating entrepreneurship values and skills (EU, 2004). Indeed, several studies have



assessed the impact of entrepreneurship education on entrepreneurial outcomes (Matlay, 2008), on entrepreneurial attitudes and intentions (Kolvereid and Moen 1997) and on entrepreneurship skills and motivation (Oosterbeek et al. 2010). Though with mixed results, most of the studies indicate a positive and significant difference between students and entrepreneurs who have and those who have not attended entrepreneurship courses (Bilić, Prka and Vidović, 2011). This is also evidenced by the massive proliferation of entrepreneurship courses in different disciplines, indicating that significant changes can be attained at different levels if entrepreneurship is taught and mainstreamed in the school curricula (Co and Mitchell, 2006; Solomon, 2007).

Research on entrepreneurship education has also focused on the target group of entrepreneurship courses. According to Fayolle and Gailly (2008), one of the target groups of entrepreneurship courses are scholars and these are individuals who wish to explore entrepreneurship at the intellectual level. Scholars include teaching staff, researchers and students at different levels. Though this target group could become entrepreneurs, more often their purpose is to acquire knowledge about entrepreneurship and its diversification, without having in mind a direct application to their career. This study focuses on teachers as the target group of entrepreneurship education. This is because it becomes more important to gain professional “instructors” and teachers often not having practical experience but the skills to teach entrepreneurship. The rest of the study addresses entrepreneurship programmes for teachers.

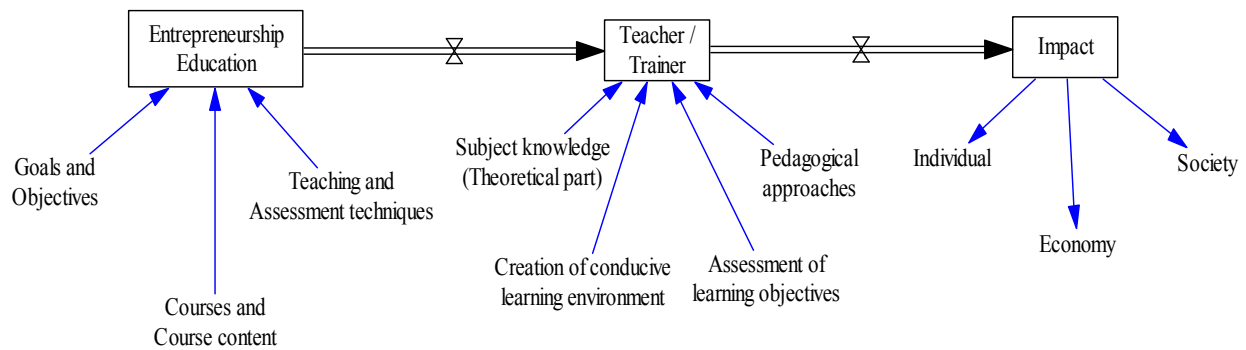
### **3.4 Entrepreneurship Education for Teachers**

According to Hynes (1996), entrepreneurship education for teachers has two branches; education and training. While entrepreneurship training focuses on the establishment of skills, quality and behavioral change, entrepreneurship education is aimed at enabling individuals to assimilate and develop knowledge, skills and values that allow a broader range of problems to be addressed in different types of contexts (Jameison, 1984; Hynes, 1996; Jack and Anderson, 1999; Henry, Hill and Leitch, 2005). Entrepreneurship education is a prerequisite for entrepreneurship training and it needs to form part of teachers’ training programme as it enhances the teaching of entrepreneurship, which involves both the “sciences” and the “arts” (Anderson and Jack, 2008). According to Hynes (1996), the content of the science part first, enables students to build theoretical foundations and second, creates a knowledge structure that enhances the

understanding of entrepreneurship. According to Jack and Anderson (1999), the content of the art part is highly subjective and involves skills that are mainly learned in the business environment through inductive, practical and social experience, less so in the educational setting (Gorman et al. 1997).

While the science part is teachable via conventional methods, the art part requires teachers' deep thoughts and their own potential in innovating creative activities for students through interactive teaching (Anderson and Jack, 2008). The study proposes the framework for Teachers' Entrepreneurship Education (Figure 3.1) and each aspect is further discussed.

**Figure 3.1. Framework for Teachers' Entrepreneurship Education Programme**



**Source:** Own construction

### 3.4.1 Entrepreneurship Education programme

According to EU (2008), entrepreneurship education programmes have different objectives, such as, developing entrepreneurial awareness and motivation among students, training students in what is needed to set up a business and managing its growth, and developing the entrepreneurial abilities needed to identify and exploit business opportunities. In reviewing entrepreneurship education objectives Mwasalwiba (2010) reached similar conclusions and that the course trains students in what is needed for job creation and contributes to society. Though the objectives of the entrepreneurship course for teachers are not well specified, they should aim to attain the mentioned objectives as well as orienting them to the entrepreneurship techniques that will enable the development of entrepreneurial attitudes among students.

Studies also indicate different categorization in terms of course names or titles and content(s) covered under the subject of entrepreneurship education. The types of

entrepreneurship education courses most offered in business schools are Entrepreneurship (Co and Mitchell, 2006; McKeown et al. 2006), Introduction to Entrepreneurship and/or Small Business Management (Kabongo and Okpara, 2010) and Business Planning (Sabokwina, 2008). Other courses, as identified by Gerba (2012) mostly teach entrepreneurship development, entrepreneurship and agribusiness, rural entrepreneurship, entrepreneurship for engineers, microfinance and entrepreneurship and entrepreneurial economies, some of which are discipline specific.

In terms of content, Kuratko (2003) suggests that the content of entrepreneurship courses should focus on the development of entrepreneurial skills, attributes and behaviors. Some scholars advocate specific content, whereby programme and course needs are adapted to suit different target groups depending on the level of education or field of study. In contrast, Johannisson (1991) identifies five content levels for the development of entrepreneurial knowledge; the know-why (attitudes, values, motivation), the know-how (abilities), the know-who (short and long-term social skills), the know-when (intuition) and know-what (knowledge). On the same lines, Cheng, Chang and Mahmood (2009) suggest the adoption of modules specifically designed to develop skills relating to communication, creativity, critical thinking, leadership, negotiation, problem-solving, social networking and time management to form part of the entrepreneurship education course. Thus, the course content is not so specific but much broader to develop a differentiated skill set.

### **3.4.2 Teaching and assessment of Entrepreneurship Education**

As Gerba (2012) commented, the uniqueness of the entrepreneurship courses emanate from its intuitive nature, which requires more hands-on experience and the teacher's own creativity and innovativeness in designing appropriate approaches. Building on this, literature categorizes two approaches to teaching, namely, traditional methods, whereby knowledge is passed passively to learners through lectures, and experiential approaches whereby knowledge is constructed by learners in the process of doing (Adcroft, Willis, and Dhaliwal, 2004; Fiet, 2001; Sexton and Upton, 1987; Hynes, 1996). The traditional methods have been criticized as they overemphasize theory rather than practical aspects. Indeed, this approach may hold back the development of entrepreneurial skills, capabilities and attributes (Collins and Robertson, 2003). Experiential-learning strategies consist of internships, management simulation, role-playing, structured-

experiential and case analyses and these are the approaches that advocate for the teaching of entrepreneurship courses (Henry et al. 2005). Other categorizations of teaching approaches include those by Weston and Cranton (1986), namely instructor-centered, interactive, individual-learning and experiential-learning strategies. Fundamentally, the first three instructional strategies have a reflective orientation and provide the basis for students' classroom assessment. The approaches are, however challenged since entrepreneurship education does not fit into traditional examination models (Henry et al. 2005).

### **3.4.3 Teachers' role and the related impact to learners**

In order to attain entrepreneurship course objectives, entrepreneurship educators need to perform the following roles:

*The teacher as a trainer;* A trainer is someone who teaches people the skills they need for a job; a good example is a teacher trainer. Brostrom (1979) categorized training strategies into four different styles; doctor, expert, coach and counselor. While the first two styles are more appropriate for teaching the theoretical aspects of entrepreneurship, the latter are more appropriate for teaching the experiential part.

*Participate in outreach activities;* As Brush, Bygrave, Manigarti, Reynolds, Sapienza and Shaver, (2003) comment, entrepreneurship educators need to teach, consult and work with students and the general public, which includes interacting with entrepreneurs and other stakeholders. Teachers also need to be role models by engaging in entrepreneurial activities that enable them to acquire relevant experience in the field.

*Create an entrepreneurial learning environment;* According to Stumpf, Dunbar, and Mullen (1991), entrepreneurial learning involves the process of simulating a context for student learning that is linked to how entrepreneurs learn in the real environment, which according to (Pittaway and Cope, 2007a) is inherently difficult. Teachers are therefore recommended to link closely students' academic performance and real project performance to create an entrepreneurial learning environment.

*Assess the outcomes of entrepreneurship at the classroom level;* Outcomes can be reflected in a change in behavior and attitude at the individual level. As summarized by Mwasalwiba (2010), the outcomes of an entrepreneurship education course include start-up by graduates (21 percent),

academic performance of students (19 percent), attitudes and intentions to act (16 percent) and contribution to society (14 percent).

### **3.5. Methodology**

#### **3.5.1 Study design and Population**

To get a state of the art and overview of the teaching of entrepreneurship in Tanzania, the PhD project used a case study design. According to Stake (1995), a case study enables the researcher collect detailed information over a period of time. To explore entrepreneurship programmes in Tanzanian schools of education, the case study as a strategy of inquiry was found appropriate as it focuses on a case in its own right taking into account its context.

The study population consists of universities that offer education programmes in Tanzania. According to TCU (2012), out of 40 university and university colleges in Tanzania, 26 institutions offer education programmes. Though the status of entrepreneurship teaching in all universities is not well reflected in research, Sabokwigina (2008) established the status of entrepreneurship education in Tanzania business schools. Results reveal that almost all business schools have some elements of entrepreneurship courses such as standalone courses and mainstreamed modules. Additionally, only 2 percent of all Tanzania HEIs have entrepreneurship centers whose role is to coordinate entrepreneurship development initiatives at the university level.

The study respondents were members of the management in schools of education, entrepreneurship educators and teachers graduating from respective universities. The management designs new courses and revises existing ones, and is therefore ideal as a target group for this study. Entrepreneurship education and teachers provided information about the course content, including teaching and assessment techniques. A total of 19 institutions participated in the study, representing 80 percent of the registered HEIs in Tanzania that offer education programmes. A database of teachers that graduated from 2008 to 2012 was obtained from the management of the respective schools of education. The time interval reflects the time when most entrepreneurship courses were established in Tanzanian non-business programmes. Random sampling was used to select the sample of teacher respondents.

The study used a self-administered questionnaire that was formulated from similar research in other contexts and in particular, Ethiopia (Gerba, 2012), South Africa (Co and

Mitchell, 2006) and the US (Solomon, Duffy and Tarabishy, 2007). The questionnaire was modified to reflect the Tanzanian context and covered issues relating to;

- Objectives of the entrepreneurship development (Management)
- Entrepreneurship initiatives in schools of education (Management)
- Entrepreneurship course structure and content (educators and teachers)
- Entrepreneurship course(s) offered (Management)
- Challenges in implementing entrepreneurship initiatives (open-ended question for the Management and educators)

The questionnaires were circulated to the respective respondents, who were required to rate their agreement with the objectives and the content of the entrepreneurship courses on a five-point Likert scale. Given the operational nature of educational institutions, an interval of 2 weeks was given to give the respondents' sufficient time to fill in the questionnaires. At the management level, of the 95 questionnaires circulated, 52 were filled in and returned (54.7 percent response rate), representing a minimum of 2 respondents from each institution. All entrepreneurship facilitators participated in the study. A total of 250 questionnaires were circulated to teachers, with a response rate of 62.4 percent.

To ensure reliability and internal validity, multiple sources of data collection were used (Merriam, 1988). The respondents provided for different levels of analysis, enabling triangulation of the study findings. Data were analyzed using SPSS 20 software and the results are presented in descriptive form and discussed using relevant literature.

### **3.5.2 Profile of the study respondents**

Schools of education consist of departments that are categorized by subjects of specialization. Though the categorization differs among institutions, the study categorized the departments into Education, Humanities and Sciences, where education courses such as curriculum and teaching methods, social science subjects and natural science subjects are offered respectively. As reflected in Table 3.1, the study respondents were from Education (50.6 percent), Humanities (30.8 percent) and Science (9.6 percent). 23 percent of the respondents were Deans, Associate Deans Academics (9.6 percent) and Heads of Departments (55.8 percent). 80.8 percent of the study respondents were males, indicating few female representatives at the management level also supported in other contexts (Mora and Ferrer-i-Carbonell, 2009; Sousa-Poza and Sousa-

Poza, 2003). Of the study respondents, 68.4 percent were from private institutions and 31.6 percent were from public universities.

**Table 3.1. Faculty representation and designation of the study respondents**

<b>Category</b>	<b>Description</b>	<b>Count</b>	<b>Percentage</b>
Faculty/Schools/Departments	Education	26	50
	Science	5	9.6
	Humanities and Social Sciences	16	30.8
	Business and Management	2	3.8
	Other Faculties	3	5.8
	<b>Total</b>	<b>52</b>	<b>100</b>
Gender	Male	42	80.8
	Female	10	19.2
	<b>Total</b>	<b>52</b>	<b>100</b>
Designation	Dean	12	23.1
	Associate Deans (Academic)	5	9.6
	Heads of Departments	29	55.8
	Representatives	6	11.5
	<b>Total</b>	<b>52</b>	<b>100</b>
Type of Institution	Public	6	31.6
	Private	13	68.4
	<b>Total</b>	<b>19</b>	<b>100</b>

**Source:** Research data (2012)

Out of the institutions that offer entrepreneurship courses (31.6 percent), 5 institutions (83.3 percent) have one full time staff member and the rest use part-time lecturers. All facilitators engage in activities that enhance the development of entrepreneurship knowledge and entrepreneurship skills, such as attending conferences and workshops, meeting practitioners, listening to inspirational speakers online and learning from the experience of professionals. According to Brush et al. (2003), these are the qualities of good entrepreneurship facilitators.

In total, 176 teachers from 15 schools of education participated in the study, with the majority (68.2 percent) coming from public institutions. The findings reflect TCU facts and figures (2012) which indicate significantly higher enrollment in public universities compared to private universities. The majority were males (64.2 percent) and 87.5 percent were aged between 21 and 40 years. 40.3 percent of the respondents graduated before 2010 and 59.7 percent in 2011-2012. The profile further shows that 87.5 percent of the graduates are employed, with 93.2 percent employed in the education sector and the remaining in non-education sectors. Most of the teachers (74.4 percent) became employed within 6 months after graduation.

## **3.6 Results**

This section presents the results by the key areas outlined in the study methodology section.

### **3.6.1. Objectives and organization of entrepreneurship development initiatives**

#### **3.6.1.1 Objectives of entrepreneurship development initiatives**

The study establishes data showing that less than half of the management respondents are aware of the objectives of entrepreneurship development at the institution level. A quarter of the study respondents seemed to be unaware of the objectives aimed at fostering an innovation culture for students and faculty members. Lack of awareness of entrepreneurship initiatives at the management level slows down the development of entrepreneurship skills among education students.

#### **3.6.1.2 Organization of entrepreneurship developments**

From the findings, 42.3 percent of the management respondents mentioned the existence of courses in the departments that address entrepreneurship aspects. 38.5 percent are unaware of any organized entrepreneurship development initiatives in their institution, indeed 13.5 percent commented that nothing exists in this direction. 3.8 percent of the respondents indicated the existence of a department with staff and only 1 institution (1.9 percent) indicated having a virtual entrepreneurship centre. Though the initiatives differ among institutions, some respondents from similar institutions provided different views, indicating a lack of awareness among institution members of entrepreneurship development initiatives.

### **3.6.2. Initiatives taken to make entrepreneurship part of the curriculum**

The study established the initiatives that have been taken at the school level to develop entrepreneurship knowledge and skills among academic staff and students. At the institutional level, the most encouraged initiatives most are the participation of academic staff in outreach activities (84.2 percent) and doing research and scholarly work on entrepreneurship (73.7 percent). These higher percentages conform to the core activities of HEIs, namely, teaching, conducting research and consulting activities. The study also found out that only 4 out of 19 schools of education (21.1 percent) provide financial support for capacity building on initiatives aimed at incorporating entrepreneurship initiatives in the curriculum.



To develop entrepreneurship skills for education students, 13 out of 19 schools of education (68.4 percent) are planning to introduce an entrepreneurship course in three years' time. For example, one institution has incorporated a course on Entrepreneurship and Small Business Management, which is designed to lead to a Masters of Arts in Education. Other institutions are planning to introduce stand-alone courses in various degree programmes as well as partnering with respective Business Management faculties to design appropriate modules for education students. Additionally, 12 institutions (63.2 percent) have introduced courses in various departments to enable education students to acquire entrepreneurship knowledge and skills. Of these, 6 schools of education (42.1 percent) maintain that entrepreneurship skills are mainstreamed in the main teaching programme and other institutions conduct specially tailored seminars for education students (47.4 percent).

Other initiatives introduced by schools of education besides incorporating entrepreneurship in the curriculum include;

- Inviting entrepreneurs and practitioners from different organizations to share their experience with students
- Allowing students to visit nearby institutions for seminars;
- Organizing a career talk during the convocation day;
- Organizing voluntary sessions for interested students and
- Practically orienting students to outreach programmes.

Though some initiatives have aimed at developing entrepreneurship knowledge and skills among students, they have not been institutionalized and are individually coordinated. Table 3.2 further summarizes the percentage representation of entrepreneurship initiatives in schools of education.

**Table 3.2. Initiatives of Institutions to make entrepreneurship part of the university curriculum**

Initiative	Yes		No	
	Count	Percent	Count	Percent
Academic staff to participate in outreach activities	16	84.2	3	15.8
Encourage academic staff to do research and scholarly work on entrepreneurship	14	73.7	5	26.3
Planning to start an entrepreneurship (course) in three years	13	68.4	6	31.6
Introduced courses in various departments	12	63.1	7	36.9
Increased commitment to entrepreneurship activities and offerings	11	57.3	8	42.7
Offer specially tailored seminars to students and clubs	9	47.4	10	52.6
Orientation seminar for management and lecturers	8	42.7	11	57.3
Provide financial support for entrepreneurship capacity-building initiatives	4	21.1	15	78.9

**Source:** Fieldwork (2012)

### **3.6.3. Entrepreneurship Education course structure**

#### **3.6.3.1 Objectives of entrepreneurship course**

All entrepreneurship educators indicated the development of general enterprising tendencies and the development of interest among learners in how to access business opportunities as the main objectives of entrepreneurship education for education students. Other objectives included creating awareness of business opportunities in the education sector (83.3 percent) and providing students with the opportunity to discover their personal potential (83.3 percent). Most of these objectives are in line with those of the EU (2008) of developing entrepreneurial drive and exploiting business opportunities.

#### **3.6.3.2 Content of entrepreneurship education**

Entrepreneurship educators were provided with a list of entrepreneurship course content to indicate what is covered in their courses. In the same way, teachers graduating from the respective universities were requested to indicate the importance of entrepreneurship course content in enhancing entrepreneurship knowledge and skills. As summarized in Table 3.3, what teachers perceive as important is included as a content in the entrepreneurship course. In terms of teachers' ranking, 'Innovation and creativity' was ranked first, followed by 'theories of entrepreneurship' and 'marketing skills' with 'knowledge on how to become an entrepreneur' being ranked third. Other aspects covered by entrepreneurship courses, as reflected by entrepreneurship educators, include entrepreneurship theories, contemporary issues in entrepreneurship and business incubation with the management of educational enterprises least taught.

#### **3.6.3.3 Teaching and assessment techniques**

As reflected in Table 3.4, all facilitators use the lecture method as a teaching technique, followed by reading assignments (66.7 percent), whereby students are given individual assignments. According to Weston and Cranton (1986), reading assignments are effective if students are given regular feedback. The case study (66.7 percent) and inviting guest speakers (50 percent) are also mostly used as teaching techniques. There is a need however to use video clips and simulation, since these techniques inspire students and in their course of teaching they will need to apply them.

**Table 3.3. Content of entrepreneurship courses and its perceived importance**

Content of entrepreneurship education	What is taught		Perceived importance by teachers who studied Entrepreneurship					
	Count	%	Mean	Valid percentage Values*				
				1	2	3	4	5
Innovation/creativity	6	100.0	4.65	1.0	2.9	5.9	10.8	79.4
Theories of entrepreneurship	6	100.0	4.42	1.0	2.9	15.7	13.7	66.7
Marketing skills	6	100.0	4.47		1.0	14.6	21.4	63.1
How to become an entrepreneur	6	100.0	4.44			19.4	17.5	63.1
Business plan write-up	5	83.3	4.39		2.0	17.6	19.6	60.8
Meaning of entrepreneurship	5	83.3	4.21	2.0	3.9	22.5	14.7	56.9
Opportunity recognition in education sector	5	83.3	4.18		2.9	29.4	14.7	52.9
Risk management	4	66.7	4.16	1.0	4.0	24.0	20.0	51.0
Sources of finance	6	100.0	4.17	1.0	5.9	18.8	23.8	50.5
Awareness of enterprising tendencies and how to develop them	6	100.0	4.20	1.0	2.0	22.0	26.0	49.0
Entrepreneurial characteristics	6	100.0	4.00	5.8	5.8	19.4	20.4	48.5
Managing education enterprises	2	33.3	4.14	1.9	4.9	15.5	33.0	44.7
Awareness of entrepreneurial career options	5	83.3	4.05		4.0	29.7	23.8	42.6
Learning and training styles	3	50.0	4.01	1.0	2.9	30.1	26.2	39.8

**Source:** Field data (2012)

\*Values are points on the Likert scale, ranging from 1 (Least important) to 5 (Very important)

The most used assessment technique, also reflected in Table 3.4, is group assignments. This method seems to be appropriate as it overcomes the problem of the large number of students given the limited number of academic staff. This is followed by examinations (83.3 percent) and individuals' written work (66.7 percent). Other mostly used assessment techniques are case writing and business plan write-up, both with 50 percent. Term papers are not used by any entrepreneurship educator. According to Weston and Cranton (1986), term papers are best used to assess individual reading assignments but not to teach entrepreneurship in general.

### 3.6.4. Status of Entrepreneurship Education courses offered

As reflected in Table 3.5, though the course names vary among institutions, 6 out of 19 schools (31.6 percent) offer courses reflecting in their titles entrepreneurship. Previous studies show that there is a wide range of entrepreneurship courses (Co and Mitchell, 2006) and that course title does not always reveal the entrepreneurship content within (Vesper and Gartner, 1998). 50 percent of these courses are offered in public institutions in the Humanities and Education departments, with limited courses meant for prospective science teachers. Five (5) out of 19 schools of education (23.6 percent) indicated 'Development Studies' as an entrepreneurship course. Within the development studies course, entrepreneurship skills are imparted to students as a cross-cutting issue and specifically the role of entrepreneurship in economic development.

**Table 3.4. Teaching methods and assessment techniques**

Teaching method	How often the technique is used (percent)		
	Not used	Used somewhat	Mostly used
Lectures	-	-	6 (100)
Readings	-	2 (33.3)	4 (66.7)
Case studies and analysis	-	2 (33.3)	4 (66.7)
Guest speakers	-	3 (50.0)	3 (50.0)
Seminars	2 (33.3)	2 (33.3)	2 (33.3)
Students interviewing entrepreneurs	1 (16.7)	3 (50.0)	2 (33.3)
Consulting to small businesses	2 (33.3)	2 (33.3)	2 (33.3)
Class discussions	1 (16.7)	4 (66.7)	1 (16.7)
Internship in small businesses	3 (50.0)	2 (33.3)	1 (16.7)
Role play	4 (66.7)	1 (16.7)	1 (16.7)
Video clips from inspirational speakers	3 (50.0)	2 (33.3)	1 (16.7)
Entrepreneurial activities outside the institution	4 (66.7)	1 (16.7)	1 (16.7)
Management and Business Simulation	3 (50.0)	3 (50.0)	-
<b>Assessment techniques</b>			
Group assignments	-	-	6 (100)
Examinations	1 (16.7)	-	5 (83.3)
Individuals' written work	2 (33.3)	-	4 (66.7)
Business Plan write-up	-	3 (50.0)	3 (50.0)
Case writing	1 (16.7)	2 (33.3)	3 (50.0)
Events organization	2 (33.3)	1 (16.7)	3 (50.0)
Project write-up	-	4 (66.7)	2 (33.3)
Term papers	1 (16.7)	5 (83.3)	-

Source: Field data (2012)

In this context, the content covered does not enable teachers to attain the objectives of the entrepreneurship course. Most of the courses except Development Studies were introduced from 2008 to date, indicating that education institutions are realizing the importance of incorporating entrepreneurship aspects in education schools' curricula. Additionally, the majority of the courses are offered to 3<sup>rd</sup> year undergraduate students and above.

### 3.6.5. Challenges in implementing entrepreneurship initiatives

The study further analyses the challenges schools of education face in implementing entrepreneurship development initiatives. At the institution level, the major challenge is lack of financial resources (23.1 percent); and as Blenker, Dreisler, Faergemann and Kjeldsen (2008) state, the finance for entrepreneurship initiatives may not be found within the normal university budget. The second challenge is lack of teaching staff specializing in entrepreneurship (17.3 percent).

**Table 3.5. Entrepreneurship courses offered**

Name of course		Department	Institution Count (%)	Year established	Year of study
1.	Development studies	Humanities	5 (26.3)	Before 2008	1 <sup>st</sup> year
2.	Entrepreneurship	Humanities	2 (10.5)	2008-2012	2 <sup>nd</sup> and 3 <sup>rd</sup> year
3.	Introduction to Entrepreneurship Education and Training	Education	2 (10.5)	2008-2010	3 <sup>rd</sup> year
4.	Project and Entrepreneurship	Policy Planning and Administration	1 (5.3)	2010-2012	4 <sup>th</sup> - 6 <sup>th</sup> Year
5.	Entrepreneurship Management	Humanities	1 (5.3)	2010-2012	2 <sup>nd</sup> year
6.	Project Planning and Management	Humanities	1 (5.3)	2008-2010	3 <sup>rd</sup> year and 4 <sup>th</sup> -6 <sup>th</sup> Year
<b>Total</b>			<b>12 (63.2)</b>		

**Source:** Fieldwork (2012)

Other challenges from the management point of view include:

- The course is unfamiliar and little initiatives have been taken to create awareness of the subject (15.4 percent);
- There is a view that entrepreneurship belongs to business studies and is less applicable in non-business studies. Therefore, though the subject is advocated, it does not form an integral part of the education curriculum and even if it does, it is not compulsory for all students (11.5 percent).
- Institutions' age is also a challenge, whereby younger institutions find it difficult to introduce entire programmes at once (3.8 percent).

For the entrepreneurship educators, the challenges include;

- Large classes and limited access to online entrepreneurship materials, both with 66.7 percent
- Experiential nature of the subject and limited network with entrepreneurs and/or practitioners, both with 54.5 percent.
- Lack of awareness and commitment to entrepreneurship development initiatives by the university management (9.6 percent) and
- Lack of prior knowledge among students of the subject matter (3.8 percent).

### **3.7 Discussion**

The objective of the study was to establish the status of entrepreneurship courses in Tanzania HEIs and particularly in the schools of education. The study was conducted following the development of entrepreneurship as an academic discipline at different levels of education bearing its relevance in all disciplines of study (Steyaert and Hjorth, 2003; Welsch, 2004; Fayol et al. 2006; Katz, 2003). The study found out that there is a growing trend towards incorporating entrepreneurship aspects as well as introducing entrepreneurship courses in Tanzania schools of education at the tertiary level. There are also plans to introduce more courses for education students in the near future. The findings support the appreciation of the importance of entrepreneurship programmes that has been spearheaded by various national policies (EU, 2003; FRP, 2004; URT, 1995; 2003).

Introducing the course, however depends on the nature of the institution and most institutions that have introduced the course are the oldest public universities. Studies by McKeown et al. (2006) suggest that older universities are more effective in supporting entrepreneurship initiatives than their counterparts, which can be due to the stability of their financial position and expertise. Though private institutions have similar plans, it might take time to implement entrepreneurship development initiatives, as they need to meet institutional challenges of approval and capacity building. The findings also appear to agree with the findings on adoption formalities, whereby technical and economic aspects influence the adoption decision (Katz, Levin and Hamilton, 1963).

The study also found out that though entrepreneurship as a subject is favourably perceived by the management in schools of education, the commitment made by the management in some institutions is minimal. While some institutions have dedicated their efforts to ensuring that the subject is incorporated in the curriculum, a good number of management members are unaware of the initiatives that have been taken at the institution level to develop entrepreneurship skills outside the school curriculum let alone incorporate it into the curriculum. One aspect is lack of awareness of the importance of the subject and the perception that the subject is meant for business students.

The study further established that schools of education support the activities that fall within the core vision of Higher Education Institutions of academic staff doing research and consulting in the areas of entrepreneurship. Less emphasis however is given to prospective

teachers to engage in outreach activities. Besides students being oriented to teaching practice activities, few initiatives have been taken at the institution level to ensure that students interact with practitioners including guest speakers and engage in extra-curricular activities. Engagement in relevant outreach activities facilitates the linkage between theory and practice. Additionally, such activities need to be encouraged to enable prospective teachers to develop not only entrepreneurship skills but also employability skills. A study by Shukran, Wok, Majd and Noor, (2004) established that engaging in outreach activities facilitate personal growth as graduates acquire employability skills, the skills that enhance employability especially in the current competitive labour market.

The study also found out that, though entrepreneurship facilitators demonstrate the required competencies in facilitating the course, they use traditional teaching methods. While other study findings show a move towards the use of experiential learning methods (Pittaway and Cope, 2007a; Henry et al. 2005); almost all institutions in this study that offer entrepreneurship courses use traditional teaching and assessment techniques. As commented by the study entrepreneurship educators, the large number of students hinders the usage of more interactive teaching and assessment methods, and a similar conclusion was reached by Bange (2005) and Kyaruzi (2012).

The study also found out that among the challenges of teaching entrepreneurship in schools of education is the lack of prior knowledge of entrepreneurship among education students, since most of them encounter the subject at the university level. Additionally, most of the entrepreneurship courses are offered during the final years of university study, which does not give students much time to reflect on the subject and assess how they can make use of it in the course of their career. This suggests that entrepreneurship development initiatives need to begin not only during the early years of university but also at lower levels of secondary and primary education as this will facilitate mastery of the subject and the transition from one level to another. As Kroon and Meyer (2001) stated, although strong emphasis has been placed on entrepreneurship education in tertiary institutions since the early 1990's, exposure to one course in entrepreneurship does not ensure entrepreneurial orientation or more positive expectations about entrepreneurial abilities and careers. The study recommends that entrepreneurship education should be implemented earlier in the education system for the entrepreneurial education outcomes to be realized.

### **3.8 Conclusion**

Given the limited access of Tanzanian youth to entrepreneurship courses, the study adds to the current understanding of the need for teachers to study entrepreneurship at university level. This will enhance their capacity to develop entrepreneurship characteristics at lower levels and broaden access to the course by a larger number of youth at primary, secondary and the teacher training level. Based on the study findings, though some schools have introduced entrepreneurship courses for teachers, more than two-thirds of the Tanzanian schools of education are yet to introduce such courses, besides appreciating the role of entrepreneurship in the current labour market. Some institutions are however in the process of designing entrepreneurship courses for teachers and others, engages students in activities that enhance the development of entrepreneurship knowledge and skills. Most of the institutions that have introduced the course are the oldest universities, the majority being public institutions.

There is also a growing trend towards introducing the course in private institutions; however the process is delayed by limited fiscal, physical and human resources, in particular the subject expertise. According to Clark (2004) and Gjerding, Wilderom, Camerson, and Scheunert (2006), introducing entrepreneurship into university culture requires support at all levels from the top management to the bottom with more emphasize on the faculty and the teaching members. The top management not only behave entrepreneurially to exploit external financial opportunities but also respect the decisions of their colleagues since decisions and innovations happen at this level (Association for the Study of Higher Education (ASHE), 2006).

The study recommends that, management of education schools should be committed to initiatives that enhance the development of the entrepreneurship potential in education students. Entrepreneurship is relevant to the current competitive world and to teachers in particular as they are the key change agents in the education sector (Chowdhury, Endres and Lanis, 2002; Haftendorn and Salzano, 2003). Although literature suggests important links between entrepreneurship education and entrepreneurial outcomes including start-ups (see Mwasalwiba, 2010; Raposo and Paço, 2011; Valerio, Parton, and Robb, 2014), few studies have explored the connection between entrepreneurship teaching and education programs and the broader skills that can be developed under this relationship. EU (2008) however established that the core skills and values linked to entrepreneurship education are not prioritized in teacher education programs. The study further establishes that educational and school environment do not fully



support teachers in fostering creative and innovative approaches to learning and as such time is needed to explore new approaches and a culture that encourages development of entrepreneurial characteristics in the education system. The study proposes this as an area for further research.

There is a need to encourage action-oriented programmes in the education system. This will broaden students' understanding and enable them to grasp the business world instead of being confined to their area of specialization. There is also a need for schools of education and other Higher Education Institutions in general to assess action-oriented programmes and students' engagement in personal and employability skills development activities (Saunders and Zuzel, 2010) since without assessing them their serious undertaking by students is reduced (Atlay and Harris, 2000). According to Eraut (1994), such initiatives are seen as implicit knowledge and as such do not form part of the mainstream curriculum. In due courses, Eraut (1994) is of the view that since the role of higher education is to prepare graduates for professional work, the development of practical knowledge should be as much as explicit part of the curriculum as disciplinary knowledge. Assessing such programmes will enable university students to concentrate on such activities and this will facilitate the smooth transition of graduates to the labour market.

Regarding the delivery of entrepreneurship education, there is a need to involve practitioners and other external stakeholders in entrepreneurial teaching initiatives. For instance, a study by Curri (2008) indicates that German universities have successfully used this model for external research programmes without changing their core purpose of teaching and research. There is also a need for inter-faculty teaching where trainers are drawn from a mixture of academic and practitioner instructors. Studies by Porter and McKibbin (1988) and Pittaway and Cope (2007b), for example, suggest that a mixture of faculty, who have academic and theoretical knowledge, combined with practitioners who are experts in the subject, provide a good balance between theory and practice for participants.

Other initiatives that can facilitate the development of entrepreneurial skills among student teachers include team start-ups (Frank et al. 2007; Valerio et al, 2014), whereby they form teams and each formulates a new venture, and internships where they acquire both practical experience and new links between businesses and other stakeholders (EU, 2008). The sharing of their experience by self-employed student teachers can also inspire others, and as such produce related entrepreneurship education outcomes (EU, 2008). The study also proposes that a unit to

coordinate entrepreneurship activities should be established at the institution level. Similar studies in other faculties and/or schools can be conducted in order to have well-coordinated efforts aimed at teaching entrepreneurship as a subject in all disciplines of study. This study however provides the basis for further discussion and is a link to further research work on the introduction of entrepreneurship education in other professions including the teaching profession.

## **Chapter 4**

### **Employability skills and Employability of Higher Education Institution graduates: The effect of employability skills development programmes activities, fields of study and study institutions**

#### **4.1. Introduction**

The concept of employability has over time become a topic of interest among different university graduate stakeholders (Kostoglou and Paloukis, 2007a; Cole, Rubin, Feild and Giles, 2007; De Grip, Van Loo and Sanders, 2004) In particular, it is of interest to understand why some graduates are more employable than others (Rothwell, Jewel and Hardie, 2009; Rynes, Lawson and Ilies, 2003; Tomlinson, 2008). Indeed, why is it that some graduates find it easy to secure a job that matches their area of interest while others find it difficult. Employability refers to the ability of a person to possess a set of skills and/or competencies to compete and secure any form of employment (formal employment, self-employment or any occupation) and develop his or her career in it (Harvey, 2001). The study focuses on how graduates of Higher Education Institutions (HEIs) make the transition to formal employment (in corporate and multinational firms) and how this is moderated by skills development programmes, field of study and study institutions.

The competencies also called employability skills encompass a broad range of skill components, attitudes, dispositions and competencies that reflect the contemporary concerns of a wide range of stakeholders (Hager, Holland and Veckett, 2002; Rychen and Salganik, 2001). Research shows that employability skills provide a competitive advantage to the people possessing them, although people with such skills are scarce (Brown, Hesketh and Williams, 2003). The skills enable people to maintain their productivity and thus more demanded by employers in the continuously changing work domains (Ashford and Taylor, 1990; Chan, 2000). Research further provides evidence for the notion that certain employability attributes, such as core skills, personal qualities and process skills at the individual level, positively affect the employability of graduates (Finch et al. 2013; Durrani and Tariq, 2012), the recruitment process (Bunt, McAndrews and Kuechel, 2005; Canny, 2004), individual careers (Watts, 2006), labour market prospects (Cranmer, 2006) and job satisfaction (Pavlin, 2010).

At the institutional level, employability skills represent the more general outcomes of learning as opposed to more discipline-based attributes (Hager and Holland, 2006; Blasko et al.

2002; Marton and Booth, 1997; Barrie, 2006). Indeed, Fulgence (2015a) shows that having employability skills has an influence on recruitment decisions. Additionally, graduates who can demonstrate their skills, as a result of their engagement in employability skills development programme (ESDP) activities, are more likely to be employed by corporate recruiters.

This study extends this prior research of Fulgence (in press) on graduates' employability. Specifically, it addresses the effect of employability skills on the employability of employed and unemployed graduates. The study further provides the potential moderating role of individuals' engagement in ESDP activities and their field of study, and how this role differs across HEIs. ESDP activities include all forms of extra-curricular activities taking place both within and outside the university and can be related or unrelated to the study discipline (Lorraine and Sewell, 2007). The ESDP also includes work-based learning activities such as volunteering (Boud and Solomon, 2003) and work-related learning conducted within or in parallel with the curriculum, such as field trips and career guidance sessions (Precision, 2007).

The study sounds ideal for several reasons. First, there is a pressing need to enhance the employability skills of graduates (Pascail, 2006), using the moderating effect of ESDP activities in the process (Griffiths and Guile, 2003; Rae, 2007). Empirical studies suggest that employers attach importance to extra-curricular activities (Brown and Scase, 1994; Purcell and Hogarth, 1999) and ESDPs (Fugate, Kinicki and Ashforth, 2004) because new graduates are less likely to have work experience and so their engagement in these programmes form the basis on which to evaluate their work experience (Johnson and Burden 2003).

Second, researching on the effect of the field and nature of graduates' study institution and how they moderate the effect of the employability skills and employability of graduates will add knowledge to the current understanding of the relationship between employability and study disciplines and the institutions that nurture the development of employable graduates. Furthermore, employability is shaped by the changing nature of the working environment, in particular changes in organizations, new technological advancements and the economic structure (Datta et al. 2007, pg. 11). Thus, HEIs need to continually revise their curricula to reflect the ongoing changes in the industry and take some measures to produce employable graduates (Datta et al. 2007, pg. 18-19).

The study first developed hypotheses regarding employability and the related skills, ESDP activities and field of study as well as the institutional background. Based on the

hierarchical regression model and a sample of 378 graduates from Tanzania's HEIs, the study results provide broad support for the stated hypotheses. In particular, the findings show a significant relationship between employability skills and employability that is moderated by individuals' engagement in ESDP activities across disciplines and institutions. The study enhances the current models of employability because engagement in ESDP activities enable graduates to acquire employability skills. This enhances their employability and reduces the widening gap between the outcomes of HEIs and labour market requirements (Shukran et al. 2004).

The rest of the paper is organized as follows. First, based on the literature review hypotheses are developed. Secondly, the research methodology is described. The results are thereafter presented and discussed. The final section provides conclusions.

#### **4.2 Theory and Hypotheses**

Several factors contribute to the employability of graduates, ranging from personal factors to the interaction between individuals and the institutional framework (Forrier and Sels, 2003; Gartner, 1985). The personal factors include personality traits, such as risk-taking propensity, need to achieve and be autonomous, self-efficacy, self-esteem and internal locus of control (Hull et al. 1980; Begley and Boyd, 1987; Hansemark, 2003). Such traits explain why people behave and react differently to the same situation (Llewellyn and Wilson, 2003). For example, studies by Kerka, (1998) and Fugate et al. (2004) show that self-esteem can predict employability significantly and is attributed to higher levels of employability skills and attributes (Griffen and Hesketh, 2005; Potgieter, 2012). There is also a view that self-perceived employability increases a person's control over his or her career and the confidence to secure a suitable position in the labour market (De Cuyper, Bernhart, Oettel, de Witte and Alarco, 2008).

At the institutional level, individual employability is a result of the interaction between the individual, organization's environment and the related processes (Gartner, 1985), and whether an individual is employable or not depends on the situation and experience of that person (Jones and Spicer, 2005). In this regard, factors that positively influence individuals' employability include their social and biographical background (parents' social status, ethnicity, age of entry), education (pre-higher education and higher education and achievements, type of HEI studied at, field of study, class of degree) and mediating factors such as work experience,

engagement in extra-curricular activities, career development courses or programmes, student-faculty interaction and job search behaviour (Karamesini, 2008; Pascarella and Terenzini, 2005; Blasko et al. 2002; NMTU, 2001).

Studies also show that an individual's competence is a key measure of employability (Schaeper 2009; Moreau and Leathwood 2006), in particular, the possession of employability skills (Lorraine and Sewell, 2007; Yorke and Knight, 2004). Though the skills may differ among professions and can be context specific, research clearly shows that all kinds of employability skills change over time and are demanded in all workplace situations (Hager et al. 2002; Moy 1999). Research further shows that the development of employability skills is influenced by the field of study (Barrie, 2006; Atlay and Harris, 2000), the study institution (Brown and Scase 1994; Purcell and Hogarth 1999) and individuals' engagement in ESDP activities (Canny, 2004; Snape, 1998).

Based on this background, a theoretical rationale is developed on how ESDP activities, the institution where graduates studied and field of study may affect the relationship between employability skills and the employability of graduates is developed. First, a description of why it is expected that the possession of employability skills will positively impact the employability of a new graduate is discussed. New graduates in this context refer to those with a bachelor's degree who have not been in the labour force for more than three years after graduating (Abel et al. 2014).

#### **4.2.1 Employability skills and the employability of new graduates**

As well as imparting academic knowledge through university courses, the higher education system increase the quality of human capital by improving employability of its graduates (Knight and Yorke, 2003; 2004) including the related skills. Knight and Yorke (2004, pg. 25) define employability and the related skills as a synergistic combination of personal qualities, skills of various kinds and subject understanding. The skills are also categorized as hard skills (subject understanding) and soft skills (skills transferable across occupations and working environment) and have been summarized differently by several researchers (see Finch et al. 2013; McLarty, 1998; Tucker, Sojka, Barone and MacCathy, 2000; Nabi, 2003; Elias and Purcell, 2004). Indeed, the definition and understanding of the term skills can be complex, and it is interchanged with generic skills, key competencies, qualifications and characteristics (SCANS, 1991; DEST, 2002;

Rasul and Puvanasvaran, 2009) and may vary among employers, regions, sectors and occupations (Bunt et al. 2005).

Research further indicates that employability skills and particularly soft skills cultivated informally are an important predictor of employability (Finch et al. 2013; Lievens and Sackett, 2012; Nickson et al. 2012), the driver of socio-political thinking (Moreau and Leathwood, 2006) and a determinant of an individual's personality (Ahmed, 2009). Other specific skills that affect employability are core skills (technical knowledge and academic skills of graduates) (Gardner et al. 2005; Gray, 2010), personal qualities (fixed self-belief attributes that do not change over time and are incremental) (SCANS, 1991), initiative and enterprise (ability to initiate new things and use relevant networks to realize them) (CBI, 2012) and process skills (ability to use technology, colleagues and own potential to process and manage information, work and people) (Hager and Hodgkinson, 2009; Wellman, 2010).

In relation to new graduate employability, studies show that employers focus on employability skills as they indicate individuals' long-term productivity (McClelland, 1987). Since employers recruit for organizational performance (Richardson, 1989), a study by Costin (2002) indicates a positive relationship between individuals' soft skills and future performance. Hence new graduates who can demonstrate the possession of employability skills during the recruitment process are not only employable but they also significantly contribute to organizational performance. Studies also indicate that when recruiting new graduates employers tend to focus more on soft skills and behavioural attitudes and less on qualifications (Johnson and Burden, 2003). This is because new graduates are less likely to have work experience and as such the soft skills signal individual's work performance.

Studies on employability also indicate the influence of different employability skills and attributes on employability. For instance, a positive attitude underpins all employability attributes (CBI, 2012). It also enables a person to effectively interact with the environment (Ahmed, 2009). As regards unemployed graduates, studies by Shukran et al. (2004) assert that they are less likely to be employable if they lack the required competencies, such as self-confidence, soft skills, proficiency in English and a positive attitude to work, which employable graduates tend to possess. Although employers focus on soft skills as a proxy for employability, qualifications are still important in the recruitment process (Fuller et al. 2005) and accordingly

they are often used to inform the recruitment stages, especially the screening process (Bunt et al. 2005; Jenkins and Wolf, 2005).

These study findings show that possessing employability skills is very important and can significantly impact the employability of a new graduate. The study, therefore proposes;

*H1a. Having employability skills has a positive impact on the employability of a new graduate*

*H1b. Employed graduates have a higher employability than unemployed graduates*

*H1c. Employed graduates have higher levels of employability skills than unemployed graduates*

*H1d. Employed graduates are more satisfied with their employability skills than unemployed graduates*

#### **4.2.2 The effect of ESDP activities**

Employability development programme refers to the effort to equip individuals with work-related competencies, knowledge and skills as well as to develop attitudes that support participants' future development and employment (Rahman, Majid, Zubair, Yusof, Ghalib, Dzulkifli, Janon and Shuib, 2012). Several ESDP initiatives have been developed by HEIs to enhance employability and the related skills among graduates (Shukran et al. 2004; Precision, 2007). The initiatives include activities such as embedding the skills in the curriculum (Knight and Yorke, 2004), employer participation in curriculum and course design (Cranmer, 2006; Weligamage, 2006; Frye, Ketteridge and Marshall, 2009), career guidance for students (Bridgstock, 2009) and the introduction of entrepreneurship education courses (Katz, 2003; Hynes, 1996). Developing graduates' employability skills is also successful when appropriate teaching methods are used (Precision, 2007) and when students engage in ESDP initiatives, including extra-curricular activities (Kuh 1995; Rynes, Lawson and Ilies, 2003; Tchibozo 2007).

Developing graduates' employability also relates to experiential learning opportunities outside the classroom environment such as practical fields and internships (Gabris and Mitchell, 1989; Gault et al. 2000; Callanan and Benzing, 2004). ESDP activities are important since employers appreciate it when prospective employees have been intensely involved in them (Kuh, 1995; Reardon, Lenz and Folsom, 1998; Tchibozo, 2007). Additionally, employers prefer certain extra-curricular activities such as those indicating a sense of responsibility, reliability and



maturity (Sattinger, 1998) since they provide an evidence of cultural fit, leadership, commitment, and articulation of original activities.

Studies on the impact of graduates' engagement in ESDP initiatives show a positive impact on their skills (Stuart et al. 2011), on the development of knowledge, skills, abilities and other desirable work characteristics (KSAOs) (Shukran et al. 2004) and on work experience (Mason et al. 2009). Studies further show that different types of ESDP activities unequally influence the employability of graduates (Vermeulen and Schmidt, 2008; Lau, Hsu, Acosta, and Hsu, 2013; Tchibozo, 2005). Studies by Lau et al. (2013) and Tchibozo (2005), for example, demonstrate that students who have been involved in extra-curricular activities were more likely to develop communication, leadership, creativity and self-promotion skills. For instance, engagement in sports clubs facilitate the development of leadership skills while music clubs enhances creativity skills. Additionally, engagement in extra-curricular activities at the leadership level increases employment prospects and facilitate access to large firms. Communication and self-promotion skills increased moderately from all extra-curricular activities. Unlike other employability skills, extra-curricular activities do not provide students with time-management skills.

The development of employability skills is also influenced by both the frequency and the number of programme activities a person engages in (Eccles and Barber, 1999). Furthermore, a study by Pietro (2013) shows that the probability of graduates being in employment 3 years after graduating is statistically greater if they had studied abroad. According to Pietor (ibid) this effect is driven by the impact the abroad study programs have on the employment prospects of graduates, particularly those from disadvantaged backgrounds.

Combining these arguments, the employability of employed graduates is expected to be strongly related to their engagement in ESDP activities. In this context, if graduates take part in ESDP activities, they have a much greater chance of developing their employability skills than those who do not take part in or engage in a limited number of activities. Accordingly, it can be assumed that the employability of new graduates is to a large extent determined by the number and variety of activities they engage in. The study thus hypothesizes:

*H2a. There will be a positive moderating effect of employability skills development activities on the relationship between employability skills and graduates' employability*

*H2b. Participation in employability development initiatives will be positively associated with employability*

*H2c. The effect of employability skills development programme activities on graduates' employability is greater for employed graduates than for unemployed graduates*

#### **4.2.3 The effect of study institution**

Besides individuals' engagement in ESDP activities, the study also proposes that HEIs' environment moderates the relationship between employability skills and the employability of new graduates. HEIs as a social system consist of interrelated parts that work together to achieve a common purpose (Porter, 1979) or a competitive advantage (Nauta et al. 2009). To analyze social systems and in particular HEIs in this study, Banathy (1992) proposes the need to construct three lenses; the environment model (the system's input and output), the structure model (system's goals, objectives and main functions, including the faculty and other components that carry out the functions), and the process model (study programmes, teaching methods and evaluation).

Studies show that the institutional environments and support have different effects on the system's inputs and outputs. For instance, studies show how graduates' perception is positively affected by the institution's image (Pampaloni, 2010), reputation (Finch et al. 2013), ranking (Capobianco, 2009) and the structure of the academic programmes (Sauer and O'Donnell, 2006). Studies also indicate that the age and ownership of the institution influence the employability of graduates. For example, a study by (Blasko et al. 2002) indicates that old university graduates are at a greater advantage than new university graduates, and new university graduates are at a greater advantage than college graduates as regards employability. Indeed, leading employers prefer to employ graduates from more established institutions (Brown and Scase 1994; Purcell and Hogarth, 1999).

Employers' preference for students graduating from well-established and reputable universities suggests that these institutions attract more able students and offer a high quality of teaching (Klein, 2010; Ryan, 1996). It may also be true that mature institutions have integrated an employability agenda in their mission statements and attributes that need to be demonstrated by their graduates (Yorke and Knight, 2004; Cranmer, 2006), thereby making their graduates more competitive. Since the integration of employability agenda in HEIs varies among countries

and institutions, some HEIs have designed specific programmes for this purpose, and graduates from them are likely to be more employable (Precision, 2007). Integrating ESDP activities in a university-wide programme also requires resources in terms of expertise and finances, which younger institutions may not be able to afford (Fulgence, 2015b).

Recruiting from specific institutions also depends on employers' experience of working with graduates from them. For example, employers hiring graduates from public universities are satisfied with their graduates (Gurvinder and Kaur, 2008). Furthermore, employers who recruited from the long-term unemployed report that they would not do so again as they are not prepared to work hard and tend to quit their job without giving sufficient notice (Devins and Hogarth, 2005).

In relation to the recruitment process, a study by Finch et al. (2013) asserts that when hiring new graduates, employers regard soft skills as the most important and institutional factors such as academic reputation as of the least important. Zhou (2003) also reaches a similar conclusion that the reputation of the university has only a slight impact on employability. This is because each institution regardless of age, size and ownership has something to offer (Branine, 2008). Additionally, all institutions offer more or less similar programmes and academic courses making their graduates appealing to employers.

Although the findings provide mixed results, this study given its context expects that the employability of graduates is not strongly associated with the institution from which they graduated. However, the employability of employed graduates can be associated with the age and ownership of the institution. In this context therefore, graduates from old and public institutions are more employable not only due to the nature of the system's inputs, processes and outputs, but also to the institutions' resources as discussed earlier. The study therefore hypothesizes that:

*H3a. The effect of the study institution on graduates' employability is stronger for public institutions than for private institutions*

*H3b. The effect of the study institution on graduates' employability is stronger for older institutions than for younger institutions*

*H3c. The effect of the study institution on employability skills development activities is stronger for older institutions than for younger institutions*

*H3d. The positive effect of the variety of employability skills development programme activities on graduates' employability is stronger for public institutions than for private institutions*

#### **4.2.4 The effect of field of study**

The study also proposes that the field of study has a moderating role in the relationship between employability skills and employability. According to Hager et al. (2002), the increasing importance of the development of employability skills in higher education rests on specific provision being made to foster them in the context of disciplinary learning. As Barrie and Jones (1999) show, discipline-centred approaches are widely held to be more engaging for students, ultimately leading to better graduate employability outcomes.

The literature further provides supporting evidence on the variation among different fields of study in the development of employability skills. For instance, in the arts fields there is a greater emphasis on the development of verbal and linguistic skills, particularly written and oral communication skills, than in the hard science fields (Kwok, 2004; Neumann, Parry and Becher, 2002). Such skills are necessary for being recruited for many high-level professional and managerial jobs (Brown and Scase 1994; Purcell and Hogarth 1999). On the other hand, graduates of applied fields (vocational sciences) appear to have better teamwork skills than graduates of pure fields (non-vocational sciences). These fields of study are further discussed.

According to Neumann et al. (2002), the variation in the acquisition of employability skills between disciplines is attributed to the teaching and learning activities. For example, in soft fields (vocational and non-vocational arts fields of study) the typical activities are written assignments, guest speakers and face-to-face meetings. In hard science fields (vocational and non-vocational sciences) the activities that enhance skills development focus on quantitative methods, with teaching and learning activities largely involving problem-based instruction, objective tests and heavy reliance on facts and oral presentations. Additionally, vocational arts fields are strongly characterized by lectures and theories, unlike the vocational sciences fields that emphasize principles and concepts (Blasko et al. 2002).

In relation to the employability of graduates, research shows that the field of study is a significant criterion for the allocation of jobs to individuals (Hansen, 2001; van de Werfhorst, 2002) and it determines the employability prospects and attitudes of graduates to the labour market (Kostoglou, 2007b). For instance, to establish the relationship between the subjects

studied and employability prospects, studies by Blasko et al. 2002) and Kong (2011) show, in order of preference, that vocational science graduates (studying medicine, computing, engineering and architecture) have more favourable labour market outcomes than vocational arts graduates (studying law, business and administration, education, librarianship and information) and non-vocational science graduates (studying biology, physical sciences and mathematics). The fields with less favourable outcomes on average are in the area of non-vocational arts (art, the humanities and languages). Similar conclusions have also been reached by Psacharopoulos and Schlotter (2010) and Elias and Purcell (2004) adding that graduates who studied vocational fields and or subjects such as medicine, education, engineering, mathematics and computing, were less likely to have obtained employment in non-graduate occupations following graduation. Graduates with degrees in the humanities however had relatively high levels of securing employment in the non-graduate occupations. According to Elias and Purcell (2004) non-graduate occupations are the ones previously held by non university graduates and include posts such as leisure and sports managers, nurses and midwives and hotel managers. Following the current labour market changes, such posts demand broader skills and university education. A study by Blasko et al. (2002) also shows that graduates who studied non-vocational subjects were almost twice more likely to be unemployed within the first three-and-a-half years after graduating than those who studied vocational subjects.

To find out why this is so, a study by Klein (2010) indicates that the fields of humanities and social sciences, also known as soft fields, are considered less occupationally specific and less academically challenging, which partly creates more difficulties for its graduate entering the labour market. Moreover, soft fields are less selective (Biglan, 1973) and are more easily completed successfully than other fields (Reimer, Noelke and Kucel, 2008). Indeed, recent research shows that graduating with a maths or science major is more difficult than pursuing other fields of study (Stinebrickner and Stinebrickner, 2014).

Studies further show that in other instances, a weak relationship exist between specialization and employability. In this regard, high percentage of graduates become employed in occupations different from their study disciplines a term referred to as hetero-employment (Kostoglou, Vasilakopoulos and Zafeiropoulos, 2007b pg. 3). A study by Kostoglou and Paloukis (2007c), for example, indicates a significant effect of graduates' specialty on hetero-employment. Specifically, while nearly all graduates from the fields of health sciences and

informatics find there is a strong relationship between their job and what they studied, graduates from agriculture (plant or food production, farm management, marketing and tourism) find there is less of a relationship between their work and what they studied. In terms of percentages, one out of four graduates switches to hetero-employment. (Kostoglou, *ibid*). There is also a growing trend regarding non-graduate occupations as earlier indicated, whereby those occupations previously entered into by non-graduates are now being pursued by graduates (see Elias and Purcell, 2004).

Based on these arguments, it is expected that graduates from vocational fields, first, develop their employability skills because the teaching process exposes them more to ESDP activities. Second, their fields of study are perceived to be linked to specific occupations, thereby increasing their employability prospects. Therefore, it is also possible that graduates from vocational fields are more satisfied with their employability skills as they engage more in activities that develop their employability skills. The study thus hypothesizes:

- H4a. The effect of the field of study on graduates' employability and employability skills is stronger for vocational fields than non-vocational fields. In other words, there is a positive relationship between studying vocational arts and employability*
- H4b. The effect of the field of study on graduates' employability is stronger for science fields than arts fields. In other words, there is a positive relationship between studying science and employability*
- H4c. Graduates from vocational fields of study engage more in activities that develop their employability skills than their counterparts*
- H4d. Graduates from vocational arts fields are more satisfied with their employability skills than those from non-vocational fields of study.*

### **4.3 Method**

The study addresses the impact of employability skills on the employability of new graduates from different institutional environments and fields of study, with the moderating role of ESDP activities. To get a broad sample of newly recruited graduates, the study relied on the sample of employers used by Fulgence (2015a) in the qualitative phase. In particular, the employers were asked to grant us access to their newly employed graduates and the ones employed in the past three years after graduating. Additionally, the Association of Tanzania Employers (ATE) was

contacted to provide us with the contacts of employers registered with it. ATE is a representative organization of employers in all sectors of the Tanzanian economy, excluding the civil service. ATE has 1000 plus registered members, who come from private business firms, companies and parastatal organizations. The members are classified under eight divisions, namely Agriculture, Commerce, Industry, Mining, Banking and Finance, Oil industry and Utilities, Services and Private Security. Using the ATE categorization, almost all sectors are represented in this study.

All employers were informed of the purpose of the study and the need for the graduates employed by their firms to participate. A survey was developed and circulated online and physically to 357 employers. A survey is the preferred type of data collection procedure since it provides rapid turnaround and makes it possible to identify attributes of a large population from a small group of individuals (Babbie, 1990; Fowler, 1992). A third of the employers admitted that they do not employ graduates and/ or have not employed graduates during the past three years. A total of 400 questionnaires were circulated to the remaining 166 employers. Since respondents answer voluntarily to surveys, 30 percent of the employers did not respond. The remaining 117 employers circulated the questionnaires to their newly employed graduates. A total of 189 employed graduates responded to the questionnaire, a response rate of 47.3 percent.

To obtain a list of unemployed graduates, recruitment agencies and associations responsible for recruiting graduates were contacted and they circulated the questionnaires to their members on the researcher's behalf. Other recruitment agencies allowed the researcher to collect data directly from the graduates during recruitment sessions organized by the agencies. A total of 400 questionnaires were circulated and 230 were returned, a response rate of 57.5 percent.

The sample was thereafter selected to meet the study's aims. Specifically, the study includes graduates that graduated from 2011 to 2013. The thinking was that graduates who had been in the labour market after graduating for over 3 years must be engaged in different forms of employment or further studies (Kong, 2011). Since the questionnaire was specific, all graduate respondents were within this category. This was followed by excluding graduates who graduated when they were over 34 (5 percent) as some already had work experience. After cleansing for age and missing observations a homogenous sample of 378 (172 employed and 206 unemployed) young graduates was obtained.

To address the limitations of response bias (the effect of non-responses on survey estimates) Fowler (1992), a few non-respondents were contacted by phone to determine whether

their responses differed substantially from the study respondents. There was no substantial difference in this regard. The data collection approach also resulted in convenience sampling, leading to concerns about representativeness of the findings. To address this, the study data were compared with the Tanzania Commission for Universities (TCU) data. As well as coordinating the enrolment of students in Tanzanian HEIs, the TCU also monitors their quality. While 69.6 percent of the study sample consists of public university graduates, the TCU (2012) data show that 68.7 percent were enrolled in public universities in 2010/2011, indicating no significance difference. Furthermore, while study data comprise 65.3 percent of male graduates, the TCU (2012) enrolment data show that 65.1 percent of male graduates were enrolled in both private and public HEIs in 2010/2011.

The data were also compared with the information obtained from the Tanzania Employment Secretariat Agency (TaESA), which coordinates the recruitment of new graduates. There is a greater resemblance between the study sample of unemployed graduates and the TaESA statistics in the science field. Females are underrepresented in all the datasets, with 37.9 percent, 34.9 percent and 34.7 percent for the TaESA dataset of unemployed graduates, TCU, 2012 and the study dataset respectively. Based on this, the study sample provides a fair representative of Tanzanian higher education graduates and their characteristics.

#### **4.3.1 Measures**

Due to the lack of a satisfactory ready-to-use scale to measure the variables, the study relies on self-reported measures. The measures are appropriate for this study since, first, some of the study constructs by definition are perceptual in nature as they measure values, attitudes and affective responses. According to Schmitt (1994) and Spector (1994) such constructs are appropriately measured by self-reported measures. Second, studies on employability use of self-report measures and questionnaires are used to assess the variables of interest (see Tariq and Cochrane, 2003; Yorke and Knight, 2004; Lorraine and Sewell, 2007). This is because, such measures are best suited than approaches to study human characteristics (Howard, 1994).

However, measuring both the dependent and independent variables using self reported measures raises concerns regarding reliability and validity of the study instrument (Kessler, 1987; Frese and Zapf, 1988; Ganster and Schaubroeck, 1991). Several steps were therefore taken



to overcome these limitations while ensuring the validity of the data and these are discussed under each variable measure.

#### **4.3.1.1 Employability of new graduates**

Employability is a multi-dimensional construct (see Finch et al. 2013, pg. 683). As stated in the theoretical section and depending on context, employability changes continuously making it difficult to measure directly (Forrier and Sels, 2003; Harvey, 2001). The study therefore focuses on employability as a process that influences the individual's chances of getting and keeping a job in relation to the internal and external labour market. To develop a reliable and valid measure of the employability construct, the study uses two variables, namely, internal and external employability, adapted from Rothwell and Arnold (2007). According to Groot and van den Brink, 2000 (as quoted from Juhdi et al. 2010, pg. 2) external employability refers to the ability and willingness to switch to a similar job in another firm and internal employability refers to a worker's ability and willingness to remain with the current employer and move within different ladders. Internal and external employability has been found to be analytically useful and has been theorized in the literature (Hillage and Pollard, 1998; Mallough and Kleiner, 2001).

In operationalizing the two variables, the items that have shown validity in prior research were used (see Juhdi, Pa Wan, Othman, and Moxsin, 2010; Rothwell and Arnold, 2007; Groot and van den Brink, 2000; Sanders and de Grip, 2004). The study instrument consists of 16-items (5 items for internal employability and 11 items for external employability). For unemployed graduates, two internal employability items are excluded as they do not reflect their status and they are not included in the overall analysis. Other items are structured to reflect graduates' current engagement and some items are structured to be more general, making the scale appropriate for unemployed graduates. The study adds the academic performance of graduates to rate its effect on employability.

The items address issues relating to skills and behaviours that contribute to effective performance (Van der Heijden, 2002), individuals' ability to respond effectively to changing circumstances (Rajan, 1997), networks of contacts which provide information and support (Fugate, Kinicki and Ashforth, 2004) and finally job-seeking skills including labour-market knowledge (Hillage and Pollard, 1998). The respondents responded to each item on a five-point Likert scale ranging from 'one' strongly disagree to 'five' strongly agree. Both positively worded

and negatively worded items are included to control for affirmation bias (Cassidy, 2006). Scores for negatively worded items are reversed so that a higher score on each item indicates a positive attitude to employability. To get a comparable score on graduates' employability, individual scale items are added for both internal and external employability and divided by the number of scale items. Total employability is therefore the main dependent variable, with the scale having a reliability of 0.75 that exceeds the recommended level of 0.70 (Cronbach, 1971).

#### **4.3.1.2 Employability skills**

As discussed under the theory section, the study groups employability skills into five broad categories: core skills, personal qualities, process skills, enterprise and attitude. The skills are adapted from different prior researchers (Lorraine and Sewell, 2007; CBI, 2012; Potgieter, 2012). Each broad skill is operationalized and measured using a scale of 34 items. The scale has been found reliable and valid in prior research (see Finch et al. 2013; Potgieter, 2012). The respondents were asked to indicate their views on a five-point scale on two aspects; first, how important is each of the skill items for securing and maintaining a job, and second, how satisfied is the respondent in demonstrating the skill items. Cronbach's alpha for the five items was 0.93, which is a similar value to that of previous employability skills scale items (Coetzee, 2010; Potgieter, 2012).

#### **4.3.1.3 Graduates' engagement in employability skills development programme**

The study assessed graduates' participation in ESDP activities using London and Smither (1999) 10-item scale with some modifications as recommended by Precision (2007) and Yorke and Knight (2004). Respondents were asked to indicate their level of engagement in 13 activities that enhance the development of employability skills on a five-point scale from not at all 'one' to very often 'five'. The activities include among others attending voluntarily non-credit courses outside university, participating in career guidance activities where they learn how to write CV's, interview skills and so forth. Cronbach's alpha for the items was 0.89, a bit higher than Yan's (2005) 0.84 established in previous employability skills development activity scale items. According to Cronbach (1971), a value above 0.7 indicates that the chosen item is consistent and reliable, which was the case in this study.

#### **4.3.1.4 Controls**

Prior studies Brown and Scase (1994); Purcell and Hogarth (1999) show that the institutional environment, particularly age and ownership, influences graduates' employability differently. Furthermore, the field of study as discussed earlier significantly influences the employability of graduates (Kong, 2011; Hansen, 2001). Therefore, variables like the institution's age, ownership and field of study are controlled in the analysis. To account for the control variables, the survey allowed study respondents to indicate where they studied and their field of study. Information on the age and ownership of the study institutions were obtained from the TCU. Dummy variables were used to indicate whether a graduate graduated from a private '0' or public university '1', old '0' or new institution '1' as well as whether they graduated from the social sciences (non-vocational arts '0' or vocational arts '1') and natural sciences (non-vocational science '0' or vocational science '1') fields. The study categorized the institutions as young if they were established after 2000 and older or mature if they were established before 2000, reflecting the Tanzanian context. The year indicates the time when many former Advanced and Ordinary Diploma colleges were transformed into universities and university colleges (TCU, 2012) to meet the growing demand for higher education in Tanzania. Respondents also indicated their employment status of whether they are employed '1' or unemployed '0' and gender male '1' or '2' female.

#### **4.3.2 Data and Construct Validity**

Since the study uses self-reported measures, several steps were taken to ensure for data validity. Principal Components Analysis, as recommended by Podsakoff, McKenzie, Lee and Podsakoff, (2003) was used to check for common method bias (i.e. the degree to which the correlations are inflated as a result of the method used). This was used to explain the variance in the employability skills as one independent variable. From the analysis nine components with eigenvalues exceeding 1 are extracted explaining 65.73 percent of the total variance, with the first one explaining 11.237 percent. For the dependent variable three components with eigenvalues exceeding 1 explaining 48.235 percent of the variance are extracted with the first one explaining 21.47 percent of the variance. For ESDP activities as the moderating variable, three factors with eigen value greater than 1 were extracted, accounting for 60.52 percent of the total variance. The first factor accounted for 23.98 percent of the total variance. The emergence

of more than one factor indicates that common method bias was not of major concern in this study.

As well and to eliminate the need for the same source to provide information for both the dependent and independent variables, different sources were used to collect data (Podsakoff et al. 2003). To minimize bias due to social desirability, in designing the questionnaire, the researcher stressed that all answers would be kept confidential and total anonymity guaranteed during data presentation and analysis. Additionally, some scale items were eliminated and reworded for clarity during pre-testing (see Nederhof, 1985). For example, to accommodate unemployable graduates as indicated in section 4.3.1.1, this external employability item ‘I have a good knowledge of opportunities for me outside this organisation even if they are quite different from what I do now’ was rephrased as ‘I am aware and knowledgeable of the opportunities arising in the world of work even if they are different from what I do now’. Additionally, the internal employability item ‘even if there was downsizing in this organisation I am confident that I would be retained’ was removed since it was not applicable to unemployed graduates. Through this the final instrument developed fully reflected the study respondents given their employment status.

The study findings are also shown to be valid, as they are corroborated by other empirical studies conducted both within and outside Tanzania, particularly those by Karadisi (2012), Kyaruzi (2012), Coetzee (2010) and Yan (2005). Documents including the CVs of unemployed and employed graduates were also analysed to justify their employment status. Focus group discussions with both groups provided another source for validating the study findings. Most of the features revealed during the discussions reflect what the analysis revealed. The validation findings however were not included in this study.

To analyze the data, a step-wise multiple regression is used to determine the variables that best predict graduates’ employability. First the mean is computed and then all continuous independent and moderator variables are standardized, as recommended by Aiken and West (1991) and Frazier, Tix and Barron (2004). To get a broader analysis of the results, a t-test is carried out to compare the study variables. Additionally, the marginal effect, the change in dependent variable associated varying the mean of the continuous independent variable (Greene, 2003) was computed using the observed mean as a basis of reference (Long and Freese, 2006). Since in the regression the coefficients represent the marginal effect, the study computed how

much (or how little) employability increases by 1 if the mean of employability skills and ESDP activities changes. The computations also reflect the respondents' employment status.

The results section therefore first presents the descriptive statistics, followed by the t-test results. Regression is used to test the study hypotheses and the marginal effect of the selected variables is calculated to measure the effect of the selected variables on the dependent variable.

## **4.4 Results**

### **4.4.1 Descriptive results**

Table 4.1 presents descriptive statistics of the study respondents. Almost 70 percent of the study respondents are from older public universities with science graduates being underrepresented (only 6 percent). The statistics agree with the TCU facts and figures that show more students are enrolled in vocational arts fields than in science fields. 45.5 percent of the study respondents are employed. Of the employed, 26.6 are employed on a permanent basis, 6.4 percent are self-employed and 11.1 percent are employed on a part-time basis. Of the unemployed graduates only 0.3 percent volunteer in different organizations. Others (49.8 percent) indicate that they are still searching for jobs and 1.7 percent were working as interns. More than half of the study respondents (53.4 percent) graduated in 2013 which was when the data was collected. It is possible they were still getting oriented to the labour market before securing a job or volunteering. Most of the study respondents who graduated in 2012 and before were unemployed. Additionally, there were less females (34.7 percent) than males, which agrees with TCU facts and figures that female enrolment is low. Two-thirds of the graduates (65 percent) indicate having had no work experience. Their experience of 0 – 6 months however reflected their experience gained from engaging in community activities and fieldwork attachments.

Table 4.2 summarizes the study variables (means, standard deviations and correlations). The mean of the dependent variable is 3.5 and the SD (0.446), meaning that on average graduates possess a moderate level of employability. A study by Barnard and Nel (2009) measuring graduates' employability (although some of the scale items were different) established that a score of 4.2 and above indicates a very good to excellent level of employability. Additionally, while a score between 3.4 and 4.2 indicates an average to very good level of employability, a score between 2.6 and 2.4 indicates average to poor and below 2.6 signals a

**Table 4.1 Respondents' characteristics (N = 378)**

Demographic Variable	Frequency	Percentage (%)
Age	18 – 34 years	98.4
	35 – 44 years	1.4
	45 – 54 years	0.4
Gender	Male	65.32
	Female	34.68
Year graduated	2013	53.4
	2012	21.4
	2011	14.2
	Before 2011	11
Employment status	Employed	27.6
	Self employed	6.4
	Part time employed	11.5
	Unemployed	49.8
	Studying	3.0
	Internship	1.4
	Volunteering	0.3
Field of study	Vocational Arts	58.4
	Non vocational arts	26.3
	Vocational Sciences	6.4
	Non vocational sciences	8.7
Work experience	0 – 6 months	65
	7 months – 2 years	30
	3 – 5 years	3.3
	6 years and above	1.7
Qualifications	Bachelor	93.0
	Masters	4.9
	Other qualifications	2.1
Universities graduated	Public	69.7
	Private	30.3
	New	68.0
	Old	32.0

**Source:** Survey data

problem that requires an urgent attention. The mean of employability skills is moderately high ( $M= 4.345$ ,  $SD = 0.513$ ), meaning that graduates possess on average a higher level of employability skills and competencies. For instance, studies by Idris and Rajuddin (2012) and Uzoagulu (1998) assessing the employability skills of students argue that a score below 3 on a five-point likert scale is considered to show a lack of competence, while a score of 3.0 and above is considered to show greater competence. Based on this categorization, the study graduates possess a higher competence level in terms of their skills and attributes. In relation to other studies, the mean of employability skills of this study is higher than that established in studies by Fitrisehara, Ramlah and Bakar (2009) ( $M = 3.86$ ,  $SD = 0.36$ ) and Bakar and Hanafi (2007)

**Table 4.2. Summary Statistics and Correlations**

	N=378	Mean	S.D	1	2	3	4	5	6	7	8	VIF
<b>Dependent variable</b>												
1	Employability	3.542	.446	1								
<b>Independent variables</b>												
2	Employability skills	4.348	.513	.225***	1							1.02
3	ESDP Activities	2.825	.623	.186***	.089**	1						1.05
<b>Other variables</b>												
4	Satisfaction with ES	4.056	.513	.259***	.403***	.299***	1					1.33
5	University Ownership	.696	.460	.030	.040	.083*	-.208***	1				1.14
6	Age of Institution	.679	.467	.017	.022	.166***	.044	.294***	1			1.13
7	Arts	.584	.494	.029	.005	.172***	.092*	.066	.156***	1		1.17
8	Science	.064	.234	.040	.035	-.066	.110**	.058	.108**	.309***	1	1.13
9	Employment status	.455	0.498	.089**	.172***	.149***	.196***	.029	.009	.132***	.019	1.11

\*\*\*p<.01, \*\*p<.05, \*p<.10 ES stands for employability skills

(Mean = 3.8, SD. = 0.55) that involved 436 final-year students at vocational institutes and 162 technical education students respectively. Involving university graduates might have raised the mean of employability skills in the study and so it can be assumed that they possess higher competency levels on employability skills than that of students.

On average, graduates from all fields are involved in only three employability skills development activities. A study by Yan (2005) established a lower mean of 1.48 for employees engaged in ESDP activities, 70 percent of whom had 0 to 5 years of work experience and only 33.6 percent were graduates. The lower mean relating to ESDP activities in Yan's study could have been attributed to the respondents' demographic composition and in particular their level of education. While all respondents in this study were graduates, it is possible that they engaged in more ESDP activities than those with lower levels of education. Although literature supporting the average number of activities students need to engage in order to enhance their employability and employment prospects is lacking, a study by Blasko et al. (2002, pg. 49) shows that students who spent more than 10 hours a week in extra-curriculum activities are more likely to be successful in their subsequent employment.

Research also suggests that participation in ESDP activities, such as sports, professional clubs and other social and community activities, benefits the employment prospects especially of younger graduates (Brown and Scase, 1994; Purcell and Hogarth, 1999; Blasko, 2002). However, the studies do not indicate the average number of activities needed to enhance employability and the related skills. A study by Stuart et al. (2011), however, established that a significant number of students lack the opportunity to engage in ESDP activities thus limiting their ability to attain the benefits of securing employment. Since there has not been much research on the role of ESDP activities in enhancing employability and future career prospects in terms of time and number of activities, further research could shed more light on this area, a view that is supported by Stuart et al. (2011).

Regarding the correlations among the independent variables, Tabachnick and Fidell (2001) recommends a coefficient of 0.7 or less between independent variables for them to be retained. Both the dependent, the independent and the control variables are below the recommended level and are therefore retained. VIF was computed to test for multicollinearity with the study values ranging from 1.02 to 1.33. The VIFs values need to be below 10 see (Hair,



Black, Babin, Anderson and Tatham, 2006) for the independent variables to meet regression procedures and therefore the variables meet regression requirements.

#### **4.4.2 T- test results**

Before regressing the variables, t-test analysis was performed to compare the study variables (employability, employability skills and ESDP activities) with respondents' employment status, fields of study and study institutions. Table 4.3 presents the t-test results. First, as regards the study variables, the results show that employed graduates have significantly higher means in all variables than their counterparts (Table 4.3, Quadrant A). Second, and in relation to the field of study, the findings reveal that vocational arts graduates are more satisfied with their employability skills. Given their field of study, it can be possible that they engage more in employability skills development activities than non-vocational arts graduates (Table 4.3, Quadrant B). This also confirms the correlation results which indicate a positive relationship between satisfaction with employability skills among arts vocational fields of study. No significant difference is observed among vocational and non-vocational science graduates as regards satisfaction with employability skills. Additionally, no difference is observed between the field of study (both arts and science fields) in employability and employability skills (Table 4.3, Quadrant B).

Third, in comparing the differences between study institutions and the study variables, the results indicate that, although graduates from the old institutions, the majority of them being public, engage more in ESDP activities, they are less satisfied with their employability skills. No difference is observed between old and new institutions as regards graduates' employability and employability skills (Table 4.3 Quadrant C and Table 4.3 Quadrant D) respectively.

Fourth, since the independent variables are composed of sub-scale items for employability skills and specific ESDP activities, the study compares these sub-items with respondents' employment status. As reflected in Table 4.4 Section A and in order of preference, the findings indicate a significant difference between employed and unemployed graduates as regards attitude, core skills, personal qualities and enterprise. In this regard, employed graduates have significantly higher scores for these skills than unemployed graduates. The results might provide some evidence of an existing relationship as proposed in hypothesis 1c that employed

graduates have better employability skills than unemployed graduates. No significant difference is observed in the process skills between the groups.

For ESDP activities (Table 4.4 Section B), the study found in order of preference a significant difference between employed and unemployed graduates, with employed graduates engaging more in career guidance activities, volunteering, participating in competitions, career talks, professional clubs and watching inspirational speakers online. The findings also provide some evidence that there might exist a relationship as proposed in hypothesis 2c.

**Table 4.3. T-test results**

	<b>A: Employment status</b>			<b>B: Field of study</b>		
	<b>Unemployed</b>	<b>Employed</b>	<b>Diff.</b>	<b>(NVArts) [NVScience]</b>	<b>(VArts) [VScience]</b>	<b>Diff.</b>
Employability	3.498	3.579	-.081**	(3.533)[3.545]	(3.561)[3.619]	(-.027) [-.075]
ES	4.260	4.430	-.17***	(4.333)[4.331]	(4.334)[4.402]	(-.005) [-.071]
Satisfaction with ES	3.931	4.179	-.248***	(3.989)[4.069]	(4.107)[3.773]	(-.117*) [.296*]
ESDP Activities	2.724	2.910	-.186***	(2.693)[2.830]	(2.909)[2.667]	(-.216***) [.164]
	<b>C: Institutions' Age</b>			<b>D: Institutions' Ownership</b>		
	<b>New</b>	<b>Old</b>	<b>Diff.</b>	<b>Private</b>	<b>Public</b>	<b>Diff.</b>
Employability	3.561	3.544	.017	3.571	3.540	0.030
ES	4.313	4.337	-.024	4.395	4.315	.044
Satisfaction with ES	4.061	3.999	.062	4.225	3.928	.297***
ESDP Activities	2.669	2.894	-.226***	2.902	2.788	.114*

**Source:** Own data (2012/2014) \*\*\*p<.01, \*\*p<.05, \*p<.10

ES stands for employability skills

ESDP Activities stand for employability skills development programme activities

V and NV stand for vocational and non-vocational fields of studies, respectively

**Table 4.4. T-test for specific employability skills and employability development activities**

	<b>Employment status</b>		
	<b>Unemployed</b>	<b>Employed</b>	<b>Diff.</b>
<b>A: Specific employability skills</b>			
Core Skills	4.176	4.313	-.138***
Process skills			n.s.
Personal Qualities	4.349	4.457	-.108***
Initiative and Enterprise	4.224	4.315	-.091*
Attitude	4.332	4.436	-.169***
<b>B: Employability skills development activities</b>			
Professional clubs	3.410	3.622	-.212***
Career guidance	3.167	3.744	-.578***
Career talks	3.316	3.547	-.231***
Watching inspirational speakers online	3.297	3.466	-.169*
Participating in competitions	2.645	2.959	-.314*
Volunteering	3.161	3.617	-.455***

\*\*\*p<. 01, \*\*p<. 05, \*p<. 10

Summarizing the t-test analysis, the results in Table 4.3 Quadrant A provide some early ideas that the relationships proposed in hypotheses 1a, 1c and 2c might exist. The findings in Table 4.3 Quadrant B also provide an indication of the existence of the relationship stated in hypotheses 4c and 4d that graduates from vocational fields are satisfied with their employability skills because they engage more in ESDP activities. The study findings, however, do not provide any early indications of the effect of institutions' age and ownership on employability and employability skills as stated in Hypothesis 3a and 3b. Finally, as reflected in Table 4.3 Quadrant B, the t-test results do not give an early indication of the relationship proposed in hypothesis 4a and in particular the association between the effect of the field of study on graduates' employability and employability skills. One possible explanation for this is that science graduates, comparable with other datasets, are underrepresented in the study sample, affecting meaningful interpretation of the findings. Additionally, some of the graduates may not know about employability skills since they are not explicitly stated and/or earmarked to be developed in their course.

The findings in Table 4.3 Quadrant C under ESDP activities provide an early idea of the relationship proposed in hypothesis 3c, that graduates from old institutions engage more in ESDP activities. As regard satisfaction with employability skills, graduates from private institutions tend to be more satisfied with their employability skills. The t-test findings further show that (Table 4.3 Quadrant D) graduates from public institutions tend to engage less in ESDP activities than those from private institutions. This could be due to the fact that most newly established institutions are public and due to financial and human resource constraints they engage less in ESDP activities.

#### **4.4.3 Regression Results**

To finally test the hypothesis, regression analysis was done. The study has three models: 1, 2 and 3. Each model is split into three sub-groups; a, b and c representing the unemployed, employed and the combined group of all graduates, respectively. The study first tested the control variables on the dependent variable (Model 1). This was followed by testing the isolated effect of employability skills with the control variables on the dependent variable (Model 2) and lastly employability was regressed for specific employability skills (Model 3).

#### 4.4.3.1 Employability and Employability skills

As reflected in Table 4.4, the results first indicate that employability skills positively influence employability (Model 2a,  $\beta = 0.133$ ,  $p < 0.01$ ; Model 2b,  $\beta = 0.401$ ,  $p < 0.01$ ; Model 2c,  $\beta = 0.161$ ,  $p < 0.01$ ). This indicates that the employability of employed graduates is largely influenced by employability skills as explained in section 4.2.1. The findings also indicate that ESDP activities moderate the relationship between employability skills and employability, indicating a significant relationship for models (Model 2a,  $\beta = 0.103$ ,  $p < 0.05$ ; Model 2b,  $\beta = 0.087$ ,  $p < 0.10$ ; Model 2c,  $\beta = 0.093$ ,  $p < 0.01$ ). In relation to the study hypotheses, the regression results confirm Hypothesis 2a and 2b, which state that there is a positive relationship between employability skills and the employability of graduates that is moderated by individuals' engagement in ESDP activities.

Second, for employed graduates, employability is also influenced by field of study; vocational arts and vocational sciences and study institution; particularly university ownership. (Model 2b,  $\beta = 0.115$ ,  $p < 0.10$ ; Model 2b,  $\beta = 0.491$ ,  $p < 0.00$ ; Model 2b,  $\beta = 1.119$ ,  $p < 0.10$ ) respectively. The results indicate that employed graduates are from the fields of vocational arts and sciences and graduated mostly from public universities. The results support hypothesis 3a which hypothesizes the positive effect of the ownership status of study institutions and particularly public universities on employability. The influence of vocational science fields, however, seemed to be more significant as it is also significant in the combined model 2c ( $\beta = 0.491$ ,  $p < 0.01$ ). The results partly support hypothesis 4a which states that the effect of the field of study on graduates' employability is stronger for vocational fields than non-vocational fields.

Furthermore, vocational science graduates are more likely to be employed than non-vocational science and both vocational and non-vocational arts graduates, with the findings supporting hypothesis 4b. As explained in section 4.2.3, there is relationship between field of study, employability and employability skills. This is attributed to the differences between the study fields in the teaching methodology, level of difficulty, course duration and engagement in ESDP activities. Additionally, vocational fields are directly attached to occupations and/or certain jobs and so graduates from these fields possess more favourable labour market prospects than their counterparts in non-vocational fields. In this regard and based on these variations, study findings (including this study's) have established that vocational sciences (such as

**Table 4.5 Regression results**

	Employability								
	Model 1			Model 2			Model 3		
	Model 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c	Model 3a	Model 3b	Model 3c
Constant	3.20 (.000)	3.09 (.000)	3.187 (.000)	2.738 (.000)	1.503(.000)	2.601 (.000)		1.408 (.002)	1.398 (.000)
Uni Ownership	n.s.	n.s.	n.s.	n.s	1.119 (.088)	.n.s	n.s.	.125 (.076)	.131 (.013)
Age Institution	n.s.	n.s.	n.s.	n.s.	-.159 (.029)	n.s	n.s.	-.202 (007)	n.s.
Arts	-.197 (.004)	n.s.	n.s.	-.162 (.017)	.115 (.095)	n.s	n.s.	.132 (.005)	n.s.
Science	n.s.	.354 (.002)	n.s.	n.s.	.491 (.000)	.157 (.074)	-.483 (.005)	.500 (.000)	.197 (.036)
ESDP activities	.168 (.001)	.131 (.013)	.142 (.000)	.103 (.047)	.087 (.097)	.093 (.012)	.242 (.000)	.137 (.011)	.159 (.000)
Total ES				.133 (.010)	.401(.000)	.161 (.000)	-	-	-
Core skills							.206 (.080)	.334 (.002)	.198 (.010)
Personal Qualities							.363 (.000)	n.s.	.217 (.003)
Process Skills							n.s.	n.s.	n.s.
Initiative/Enterprise Attitude							n.s.	n.s.	n.s.
							n.s.	.217 (.077)	n.s.
Observations	236	196	432	206	172	378	118	169	287
R2	.0778	.0775	.0406	0.068	.2056	.0673	.3803	.269	.2142
Adjusted R	.0577	.0532	.029	0.040	.1768	.0522	.3223	.224	.1857

n.s. - not significant

ESDP – Employability Skills Development Programmes

ES – Employability skills

engineering and medicine) and vocational arts (such as business studies and economics) graduates are more employable than their counterparts from non-vocational sciences (such as mathematics and biology) and non-vocational arts (such as humanities and languages), with the latter being the least likely to obtain employment. For further literature (see Blasko et al. 2002; Hansen, 2001; Psacaropoulos and Scotter, 2010; Elias and Purcell, 2004).

Third, there was a need to regress employability as a function of specific employability skills to establish the effect of each sub-scale on employability. The results are reflected in Models 3a, 3b and 3c for the unemployed, employed and the combined group, respectively. The findings confirm the t-test results that there is a significance difference between employed and unemployed graduates on all the skills sub-scales, except for process skills. The results further indicate that core skills positively and significantly influence the employability of graduates differently across all models, with the skills being more significant for employed graduates (Model 3b,  $\beta = 0.334$ ,  $p < 0.01$ ). For unemployed graduates, personal qualities seem to have a more significant impact on employability (Model 3a,  $\beta = 0.363$ ,  $p < 0.01$ ). Attitude is also found to positively influence the employability of employed graduates (Model 3b,  $\beta = 0.217$ ,  $p < 0.10$ ), with this effect being not significant in other models.

#### **4.4.3.2 Employability and ESDP activities**

The study results, reflected in Models 1a, 1b and 1c, show that ESDP activities significantly and positively influence graduates' employability (Table 4.5: Model 1a ( $\beta = 0.168$ ,  $p < 0.01$ ), Model 1b ( $\beta = 0.131$ ,  $p < 0.13$ ) and Model 1c ( $\beta = 0.142$ ,  $p < .000$ ). This indicates that engagement in ESDP activities positively influences individuals' employability, irrespective of whether a graduate is employed or not. The results support hypothesis 2b which states that participation in ESDP activities positively influences employability. The study findings however do not support the relationship stated in hypothesis 2c concerning the positive effect of the number of ESDP activities on employability. This could be due to the fact that the study respondents engage, on average, in only three ESDP activities (as earlier established). As well, literature as regards the number of ESDP activities required to enhance employability is limited (Stuart et al. 2011). However, the t-test results indicate that employed graduates engage significantly more in ESDP activities than their unemployed counterparts. Additionally and to assess the effect of the number

of ESDP activities on employability, the marginal effect was computed, as reflected in Table 4.6 section 4.4.3.2 (to be further discussed).

Model 1a results further indicate that the employability of unemployed graduates is significantly and negatively associated with the field of study. This means that graduates from non-vocational arts have significantly lower employability levels (Model 1a,  $\beta = -.197$ ,  $p < 0.004$ ). For unemployed graduates, this also indicates that studying vocational arts reduces their employability. For the employed graduates, employability is positively and significantly associated with the fields of vocational sciences Model 1b ( $\beta = 0.354$ ,  $p < 0.002$ ) only. This model therefore does not support the influence of the fields of vocational arts on employability. The influence of fields of study was also not significant in Model 1c, which justifies having separate models to reveal the relationship among the groups. The small percentage of the adjusted R might be attributed to the low mean of graduates' engagement in such activities, as earlier discussed. In relation to the hypotheses, the regression results confirm Hypothesis 2a which states that participation in ESDP activities is positively associated with employability, irrespective of the study institution.

#### **4.4.4 The marginal effect testing for employability skills and ESDP activities**

To test for the marginal effects, as explained in the methodology section, employability skills and ESDP activities are the variables of interest in this study. The variables indicate a significant and positive influence on enhancing employability (Table 4.5. Models 1 to 3). For employability skills, the proposed hypothetical mean values (mean 1) above and (mean 2) below the observed value are 5 and 2, respectively. The observed mean was high (4.348) and it was appropriate to set 5 on the higher side and 2 on the lower end. For the ESDP activities, the observed mean value was 2.823 and so the proposed hypothetical means (mean 1) above and (mean 2) below the observed value were 5 and 1, respectively. There was also a need to test for the combined effect of the two variables to establish how a marginal change in them (below and above the observed mean) affects employability. In this regard, the hypothetical means above the observed value were 5 for both variables. The hypothetical means below the observed value were 2 and 1 for employability skills and ESDP activities, respectively. To allow for the differences between employed and unemployed graduates to be observed, the regression coefficients for models 2a, 2b and 2c were used to test for the marginal effects, as reflected in Table 4.5.

Table 4.6 presents a summary of the marginal effect testing. As regards employability skills, a marginal change above the observed mean value increases the employability of both the employed, the unemployed and the combined group by 9 percent, 11 percent and 10 percent, respectively. This means that a difference exists between the groups when there is a marginal change in the mean variable. In this regard, a marginal change in the mean of employability skills has a positive change on employability as per the percentages of each group. The marginal effect testing below the observed mean also provides some new observations concerning employed and unemployed graduates. In this regard, the percentage decrease in employability is 40.3 and 34.13 for unemployed and employed graduates, respectively. The higher percentage decrease in employability can be due to the greater difference between the observed mean and the hypothetical mean value proposed below the observed mean value. The greater difference can still allow the researcher to compare the marginal effect changes among the groups. The marginal effect testing results mean that, regardless of employment status, the possession of employability skills enhance individuals' employability and lowering the competence level of the skills reduces employability. Additionally, in percentage terms, the employability of unemployed graduates decreases more and so, unlike their employed counterparts, they need to enhance their employability skills.

The t-test results discussed earlier (Table 4.3) also provide an indication that employed graduates possess a significantly higher employability skills level than their unemployed counterparts. Building on the t-test analysis, the marginal effect results imply that graduates need to develop their skills to enhance their employability. However, unemployed graduates need to develop them more than their employed counterparts. The marginal effect testing provides a further indication that employability skills can influence employability both positively and negatively. On the positive side, the marginal effect test findings agree with the study regression results that the possession of employability skills positively and significantly influences the employability of graduates (see Table 4.5: Models 2a, 2b and 2c). On the negative side, having fewer employability skills reduces individual's employability. The study t-test results, for example, indicate a significant difference between unemployed and employed graduates as regards employability, with employed ones having a higher level than their counterparts. Thus, unemployed graduates, unlike employed ones, need to develop their employability skills to enhance their employability.



**Table 4.6 The marginal effect testing**

Study models	Mean versus coefficients	Study variables						$\Sigma$ of Average values (Marginal effects)	Employability (% increase / decrease)
		ES	ESDP	Public	Old	Voc. Arts	Voc. Sc.		
<b>Variable 1: Employability skills (ES)</b>									
Model 2a	Mean * coefficient	0.58	0.29	0.00	0.00	-0.09	0.00	0.77	
	Mean1 * coefficient	0.67	0.29	0.00	0.00	-0.09	0.00	0.86	11.26
	Mean2* coefficient	0.27	0.29	0.00	0.00	-0.09	0.00	0.46	-40.31
Model 2b	Mean * coefficient	1.74	0.25	0.78	-0.11	0.07	0.03	2.76	
	Mean1 * coefficient	2.01	0.25	0.78	-0.11	0.07	0.03	3.02	9.48
	Mean2* coefficient	0.80	0.25	0.78	-0.11	0.07	0.03	1.82	-34.13
Model 2c	Mean * coefficient	0.70	0.26	0.00	0.00	0.00	0.01	0.97	
	Mean1 * coefficient	0.80	0.26	0.00	0.00	0.00	0.01	1.07	10.77
	Mean2* coefficient	0.32	0.26	0.00	0.00	0.00	0.01	0.59	-38.79
<b>Variable 2: Employability skills development programs (ESDP) activities</b>									
Model 2a	Mean * coefficient	0.58	0.29	0.00	0.00	-0.09	0.00	0.77	
	Mean1 * coefficient	0.58	0.52	0.00	0.00	-0.09	0.00	1.00	28.92
	Mean2* coefficient	0.58	0.10	0.00	0.00	-0.09	0.00	0.59	-24.27
Model 2b	Mean * coefficient	1.74	0.25	0.78	-0.11	0.07	0.03	2.76	
	Mean1 * coefficient	1.74	0.44	0.78	-0.11	0.07	0.03	2.95	6.86
	Mean2* coefficient	1.74	0.09	0.78	-0.11	0.07	0.03	2.60	-5.76
Model 2c	Mean * coefficient	0.70	0.26	0.00	0.00	0.00	0.01	0.97	
	Mean1 * coefficient	0.70	0.47	0.00	0.00	0.00	0.01	1.17	20.89
	Mean2* coefficient	0.70	0.09	0.00	0.00	0.00	0.01	0.80	-17.53
<b>The combined marginal effects for ES and ESDP activities</b>									
Model 2a	Mean * coefficient	0.58	0.29	0.00	0.00	-0.09	0.00	0.77	
	Mean1 * coefficient	0.67	0.52	0.00	0.00	-0.09	0.00	1.09	40.11
	Mean2* coefficient	0.27	0.10	0.00	0.00	-0.09	0.00	0.27	-64.58
Model 2b	Mean * coefficient	1.74	0.25	0.78	-0.11	0.07	0.03	2.76	
	Mean1 * coefficient	2.01	0.44	0.78	-0.11	0.07	0.03	3.21	16.34
	Mean2* coefficient	0.80	0.09	0.78	-0.11	0.07	0.03	1.66	-39.88
Model 2c	Mean * coefficient	0.70	0.26	0.00	0.00	0.00	0.01	0.97	
	Mean1 * coefficient	0.80	0.47	0.00	0.00	0.00	0.01	1.28	31.66
	Mean2* coefficient	0.32	0.09	0.00	0.00	0.00	0.01	0.42	-56.32

For the ESDP activities, the marginal effect testing (above the observed mean) also provides similar findings among the groups. In this regard, the employability of unemployed and employed graduates will be enhanced by 28.92 and 6.86 percent, respectively, if there is a marginal change in the ESDP activities' mean above the observed value. This means that engaging in ESDP activities increases the chances of unemployed graduates being employed and adds value to those who are already employed. Although the percentage increase in employed graduates is smaller than that of their unemployed counterparts, their engagement in ESDP activities can still enhance their employability.

For the ESDP activities below the observed value, there is also a percentage decrease in employability as a result of a marginal change in the mean of ESDP activities. The percentage decrease in employability is also higher for unemployed graduates (24.27 percent) than their employed counterparts (5.76 percent). A similar trend is reflected in ESDP activities in terms of a marginal change above the observed mean, as discussed above. This means that graduates' employability is influenced by engagement in ESDP activities and so a marginal decrease in its mean decreases employability, with the unemployed being more affected. All graduates therefore need to engage in ESDP activities in order to enhance their employability. More emphasis should however be given to unemployed graduates in this regard.

The marginal test results can add further to our understanding of the t-test results which show that employed graduates engage significantly more in ESDP activities than their counterparts (Table 4.3 Quadrant A). In due course, if unemployed graduates increase their engagement in ESDP activities, their employability will be enhanced. This is also supported by the regression results (Table 4.5 Models 1a, 1b 1c), which indicate that ESDP activities positively and significantly influence employability. ESDP activities also positively and significantly moderate the relationship between employability skills and employability (Table 4.5; Models 2a, 2b, 2c).

For the combined variables (employability skills and ESDP activities), the marginal effect testing above the observed mean also indicates that employability is increased by 40 percent for unemployed graduates and only 16.34 percent for employed graduates. This reflects a similar trend in the increase in the employability percentage when the hypothetical mean is above the observed mean value, with unemployed graduates benefiting more. The combined marginal effects of the hypothetical mean below the observed value for both employability skills

and ESDP activities also show a percentage decrease in the employability of unemployed (64.58 percent) and employed graduates (39.88 percent). Again, the unemployed suffer a greater percentage decrease than their counterparts.

In comparing the marginal effects of the study variables on the groups (both above and below the observed mean) and their effect on enhancing employability, first, a marginal change above the observed mean increases the percentage of employability of all graduates. The percentage increase however is observed more for unemployed graduates and especially as regards the marginal change in ESDP activities. Second, the marginal change below the observed mean also decreases the employability percentage for all graduates, with the unemployed being more affected. This shows that employability skills and ESDP activities influence employability and so any marginal change in them, whether above or below the observed mean, results in a subsequent increase or decrease in employability. Therefore, all graduates need to develop their employability skills and engage in ESDP activities in order to enhance their employability, especially the unemployed.

To conclude the discussion on a marginal change in the study variables of interest, first, all graduates need to increase their employability skills and competencies by engaging in ESDP activities since these enhance their employability. Second, the marginal effects of employability skills and engagement in ESDP activities and their influence on employability differ between employed and unemployed graduates. While a marginal increase above the observed mean brings a small percentage increase in the employability of employed graduates, a higher percentage increase is observed for the unemployed as regards both employability skills and ESDP activities. Indeed, the highest percentage increase for unemployed graduates is observed in the marginal change in ESDP activities.

Similar findings are reflected in the marginal change below the observed mean for ESDP activities but in a negative direction. In this regard, a marginal change below the observed mean in employability skills, ESDP activities and their combined effect results in a percentage decrease in the employability of all graduates, with the observed percentage decrease higher for the unemployed than their employed counterparts. This shows that the two variables (employability skills and ESDP activities) positively and significantly influence employability, as reflected in the regression results (Table 4.5 Models 1a, 1b, 1c and 2a, 2b and 2c). Additionally, the two variables provide a significant basis for differentiating between

unemployed and employed graduates, as established in the t-test results (Table 4.3, Quadrant A). Therefore, unemployed graduates need to develop further their employability skills and engage more in ESDP activities than their employed counterparts in order to enhance their employability.

#### **4.5 Discussion**

Studies indicate a skills gap between HEIs graduates and the demands of the labour market (Atkins, 1999; Kivinen and Silvennoinen, 2002; Karadisi, 2012). Besides the growing gap in this area, empirical evidence relating to graduates' background, particularly their efforts to enhance their employability skills, study institutions and field of study and how these can reduce the skills gap remains scant (Stuart, Lido, Morgan, Solomon and May, 2011; Jackson, 2013). This paper addresses this research gap by studying how graduates' engagement in ESDP activities and the study environment affect their employability. Specifically the study addresses how the employability skills of both employed and unemployed graduates affect their employability and how this is influenced by their engagement in ESDP activities, field of study and study institution.

##### **4.5.1 Graduates' Employability skills and Employability**

First, the study analyzes graduates' employability skills as a composition of core skills, personal qualities, process skills, initiative/enterprise and attitude. In line with the first hypothesis, the results indicate a significant relationship between employability skills as a sum of individual components and employability. Second, and as stated in hypotheses two and three, the results indicate a significant difference between employed and unemployed graduates as regards employability, employability skills and satisfaction with employability skills, with employed graduates' mean being significantly higher than that of their counterparts. The findings indicate that graduates with more employability skills are more employable than those with fewer employability skills and they engage more in ESDP activities. The findings underscore existing research results on the relevance of individuals' employability skills in different contexts (Finch et al. 2013; Karamesini, 2008; Brown et al. 2004).

The study further compared the specific employability skills composition of employed and unemployed graduates and found out that, except for process skills, there is a significant difference between employed and unemployed graduates in terms of core skills, personal

qualities, initiative/enterprise and attitude, with employed graduates having on average significantly higher scores for such skills. The regression results also confirm these findings that core skills, personal qualities and attitude have a significantly different influence on the employability of employed and unemployed graduates. Of the employability skills composition, attitude shows a greater significant difference between the groups and the regression results indicate that it significantly influences the employability of employed graduates.

Generally, the results are consistent with previous research in the field showing that personal characteristics and skills play a significant role in predicting individual employability (Hull, Boseley and Udell, 1980; Begley and Boyd, 1987; Hansemark, 2003). In relation to the difference between groups, studies by Shukran et al. (2004) Ahmed (2009) and Chung and Lim (2009) provide similar findings, showing that there is a difference between employed and unemployed graduates as regards employability skills, with unemployed graduates having lower levels in some specific skills.

Theoretically, the findings add to the current understanding of the factors that influence the employability of both employed and unemployed graduates. For instance, studies by Lorraine and Sewell (2007) and Yorke and Knight (2004) show that employability skills positively influence employability. The studies however did not indicate specific skills as established in this study. The study also has some practical implications. First, graduates need to understand the relevance and impact of employability skills and ESDP activities on employability and hence devote quality time to enhancing their skills and attributes. This has also been established from the marginal effect testing results earlier discussed. Second, besides including these programmes in their mission statements to enable the development of employability skills among students and graduates, HEIs also need also to assess them for better outcomes (Scanlon, 2006).

#### **4.5.2. The moderating role of ESDP activities, field of study and study institution in ensuring employability**

Besides establishing the relevance of employability skills for graduates, the study also analyzed ESDP activities that graduates need to engage in during their studies, since they contribute to the development of employability skills (Lorraine and Sewell, 2007; Rynes, Orlitzky and Bretz, 1997). In line with the moderating hypotheses, the results indicate that the relationship between employability skills and the employability of graduates is significantly moderated by individuals' engagement in ESDP activities. In particular, these results underline our reasoning that in terms

of employability graduates benefit from engaging in ESDP activities. The results show that graduates who engage in various ESDP activities, irrespective of their study institutions and fields of study, have significantly better employability skills than their counterparts and are more employable than graduates who engage in fewer activities.

In relation to other studies in the field, the results are similar to those of Stuart et. al (2011) and Shukran et al. (2004), which show that engagement in ESDP activities positively influences the development of employability skills. The findings are also aligned to those of Cranmer (2006), which found that when graduates engage in ESDP activities they are certain of securing a job. A study by Watt (1999) also suggests that participating in ESDP activities, such as acquiring career-building skills, results in more realistic expectations of the labour market and fewer mismatches between supply and demand.

The study also found that employability is significantly and positively influenced by the field of study of employed graduates and negatively and significantly influenced by the field of study of unemployed ones in non-vocational fields of study. The findings concur with those of Blasko et al. (2002), which indicate that non-vocational fields of study have worse labour market outcomes than vocational fields. There is however a growing trend towards non graduates occupations where posts and occupations previously held by non-graduates are now managed by graduates (Elias and Purcell, 2004). Additionally, employers are now recruiting graduates from all fields of study with the view that the skills possessed by them are transferable and can be applied in new situations (Gregory et al. 2007). Further research on the employability of graduates in relation to fields of study and the nature of recruiters will shed light on graduates employment prospects.

#### **4.6 Study Implications and Limitations**

Theoretically, the study fills the gap left by previous studies, by exclusively considering the link between specific employability skills and the employability of new graduates and how the two are moderated by individuals' engagement in ESDP activities. The results provide evidence for the notion that employability skills are relevant, on an individual basis, to the employability of new graduates from different institutions. This evidence confirms and extends earlier research showing that certain personal characteristics such as commitment, self-efficacy or dynamism are relevant to employability and success in various settings (Kiss, Danis and Cavusgil, 2012).

From a practical point of view, the study results imply that, there is a need for HEIs (irrespective of the status in terms of age, ownership and image) to explicitly include ESDP activities in the curriculum. The activities can run parallel with other academic courses to bring about the intended employability outcomes. This will enable graduates to develop their employability skills, thereby enhancing their employability prospects. Including programme activities will also make a positive contribution to graduates' acquisition of employability skills and subsequent employability if they are assessed. A study by Datta et al. (2007) indicates that since the activities are not assessed, little attention is given to them by students in the course of their studies in the education system. In addition, graduates also need to enhance their employability skills by engaging in different types of ESDP activities. Therefore, HEIs need to train graduates in how best they can enhance their employability skills.

The study has some limitations. It is important to present how they were overcome and offer some avenues for further research. First, the cross-sectional research design was used, limiting causal interpretation of the study results. Research however indicates that some traits including employability skills (although stand the test of time) can be improved by training programmes (Treadway, Ferris, Duke, Adams, and Thatcher, 2007). These arguments offer some support for interpreting the study results as per the stated hypotheses. The results are also based on data from graduates in Tanzania, thus limiting representation of the findings in other contexts. The study, therefore, proposes that further research is needed in other contexts on factors affecting the employability of new graduates. Moreover, the study findings may not be conclusive and further studies could be conducted to establish the effect of each employability skill on employability and how ESDP activities influence and are influenced by individuals' fields of study and age of the institution.

#### **4.7 Conclusion**

Currently, HEI stakeholders, particularly employers, are stressing the importance of employability skills as a prerequisite for employability and positive outcomes in the labour market. The skills are critical since they determine individuals' career success and are related to organizations' long-term performance (Richardson, 1989; Costin, 2002). This study explored the relationship between employability skills and employability and how this is moderated by an individual's engagement in ESDP activities, graduate's field of study and study institution.

Combining the theory and models of employability with information from a survey of employed and unemployed graduates, the multivariate analysis found a positive relationship between employability and the composition of employability skills that is moderated by individuals' engagement in ESDP activities, the study institution and university ownership.

From the findings, the study suggests three interactions that are instrumental in enhancing graduates' employability; namely, possession of employability skills (attitude, core skills, personal qualities, and initiative/enterprise), engagement in employability skills development activities (career guidance, volunteering, competitions, career talks, professional clubs and watching inspirational speakers online) and partly the institutional environment (field of study and university ownership) for the employed graduates.

These results suggest that different employability attributes and employability skills development activities positively influence individuals' employability. In this context, employable graduates may possess a greater set of employability skills and engage more in employability skills development activities than their counterparts. Furthermore, graduates from the science fields, due to the nature of the teaching process and their fields being attached to occupations, are more employable than their arts counterparts. In addition, graduates from arts fields who engage more in employability skills development activities are more likely to develop their employability skills than graduates who engage less in such activities and this enhances their employability.

The analysis, however, did not establish well the moderating effect of university ownership and study institution on the relationship between employability skills and employability of the unemployed graduates, hence calling for further detailed research on the subject. Similar views have been expressed by Branine (2008), who argues that most employers in the UK do not regard the type and/or nature of graduates' study institution as important during the recruitment process. A study by Ryan (1996), however, provides different findings, commenting that most employers prefer old universities rather than new ones, due to the quality of their input, the teaching resources and the experienced faculty. It is possible that over time employers have changed the way in which they perceive graduates and the institutions where they studied. According to Branine (2008), the change in employers' attitude is grounded on the view that each university, regardless of its age or size, is known for certain disciplines, programmes and courses, and as such has something to offer. In this regard, the new universities



more or less offer similar degree programmes to those offered by the older ones. The ranking and assessment of universities is also based on the Research Assessment Exercise (RAE) and the Quality Assurance Agency (QAA) rather than the traditional distinction between old and new universities (Branine, 2008, pg. 511). In Tanzania, there exists a similar unit, Tanzania Commission for Universities (TCU), which monitors the quality of HEIs in terms of input, processes and output. This could also be the reason why employers recruit from all institutions in the Tanzanian context with the view that most universities have something to offer for their graduates.

There is also a need to establish the nature of the identified employability skills development activities, for instance, the nature of the competitions graduates take part in, the nature of professional clubs and career guidance activities and how each influences employability and the related skills. Further studies could also be conducted to establish how significant hetero-employment is to recruiters and what study disciplines are relevant now that employers recruit from all disciplines.

The main conclusion is therefore that for graduates who need to enhance their employability irrespective of their field of study, engagement in employability skills development activities is not an option but rather a mandatory undertaking, since the activities not only enhance their employability skills but also enable them to compete better in the world of work. Establishing this interaction between employability skills and employability skills development activities, both at the individual and institutional level, contributes to the literature as it answers some aspects of employability and it calls for better contextualization of employability development research as proposed by Lau et al. (2013). Finally, the study findings can help to explain how the employability skills of HEI graduates are developed to meet the demands of the current labour market, views that are shared by Precision (2007) and Rahman et al. (2012).

## Chapter 5

### **Employability skills and graduate employability: Moderation role of Entrepreneurship education, social-demographic factors and work experience**

#### **5.1 Introduction**

Over time, employability skills have been discussed in relation to individual employability, organizational performance and job satisfaction (Collins, 2000; Andrews and Higson, 2008; Mason, William and Cranmer, 2009). Employability skills also named as soft skills refer to basic competencies and knowledge needed to acquire and retain a job (Saterfield and Mclarty, 1995). The skills comprise cognitive abilities, such as learning to learn, innovativeness, communication skills, an analytical and problem-solving mind (Bikson and Law, 1994; Stasz, Ramsey, Eden, Melamid and Kaganoff, 1996) and a positive attitude, which includes proactiveness, hardworking, strong motivation and being curiosity driven (Tan and French-Arnold, 2012). The skills also comprise process skills, such as computer literacy, interpersonal skills (which range from being friendly and approachable to being aware of workplace culture and operating within its parameters) and transferable skills (such as organizing, planning, research, working with and leading other people and dealing with conflict) (Walker, 1995; Chowdhury et al. 2002; Barnard and Nel, 2009; Newton et al. 2005; Wellman, 2010).

Employability skills form a basic dimension of employability which, includes all the individual and context-related factors that influence the future labour market position (Forrier and Sels, 2003). Though employability can be interpreted as whether or not a graduate has secured a job over a period of time (Lorraine and Sewell, 2007, pg. 278), Harvey (2003) defines employability broadly as the acquisition of attributes (knowledge, skills and abilities) besides technical skills that make graduates more likely to gain employment and be successful in their chosen occupations (whether paid employment or not). Accordingly, employability is a multi-dimensional construct that includes the ability of an individual to secure first employment, to transfer between positions at the same workplace and to secure employment at a new organization (Hillage and Pollard, 1998, pg. 2; Saterfield and Mclarty, 1995).

Several studies have been conducted on role of HEIs in enhancing graduate employability and the related skills (see Weil, 1999; Sleezer, Gularte, Waldner and Cook, 2004; Bok, 2006; Possa, 2006). Although the benefits of employability skills are acknowledged in terms of

individual and societal wellbeing (Rychen and Salganik, 2003; Carmeli, Yitzhak, Halevy and Weisberg, 2009; De Cuyper et al. 2008), the role of HEIs in enhancing skills and producing graduates who can meet the changing labour market demands is of concern (Teichler, 2003; Elias and Purcell, 2004; Karadisi, 2012; Kyaruzi, 2012). This is justified by the literature on employability skills that largely focus on employers' views on the skills gap between graduates and labour market demands (Morley, 2001; Kolawole and Arikpo, 2008; Shukran et al. 2012). The study findings indicate a growing gap between graduates' competencies and labour market demands (King, 2003; Cassidy, 2006; Karadisi, 2012). Graduates also fall short in many of the employability skills as demanded by the employers (Radhakrishna and Bruening, 1994; Robinson and Garton, 2008).

To enhance employability and develop employability skills, a study by Fulgence (in press) indicates that engaging in employability skills development activities significantly influences specific employability skills and subsequent employability. The study further indicates the nature of activities that graduates need to engage in so as to enhance their skills and attributes. The literature also shows that employability and the related skills are influenced by social-demographic factors such as age and parents' occupation (Blasko et al. 2002), education (Schultz, 1961) and work experience (Gabris and Mitchell, 1989; Groot and van den Brink, 2000). This study aims to extend this research and specifically, addresses the effect of employability skills on the employability of individuals from different socio-demographic backgrounds.

The study further provides for the potential moderating role of education and in particular entrepreneurship education and graduates' work experience in the relationship between employability skills and employability. The study also establishes how this moderating role differs across different social-demographic backgrounds. This is an area that has not been researched, as advocated by Charney and Libecap (2000), besides entrepreneurship education having a significant impact on different entrepreneurial outcomes (Mwasalwiba, 2010).

This study aligns to the Pittaway and Cope (2007b) definition of entrepreneurship education, which consists of all education aspects aimed at developing entrepreneurship skills and values as well as the creation and management of small and growth oriented enterprises. Work experience refers to all forms of experience acquired prior to or during the course of study and can either be related or not related to the field of study (Blasko et al. 2002).

The study uses a hierarchical step-wise multiple regression models and a sample of 402 graduates. First, study results support the hypothesis that there exists a significant relationship between employability skills and employability that is moderated by graduates' participation in an entrepreneurship course as a subject. In order of preference, the study shows that graduates who took an entrepreneurship course are significantly more satisfied with their initiative/enterprise skills, attitude, process skills and personal qualities. No significant difference is observed in the core skills regarding this aspect. Second and in relation to socio-demographic factors, the split sample indicates that parents' occupation significantly and positively influences the employability of unemployed graduates. Furthermore, work experience does not influence the employability of employed graduates, but it significantly and negatively influences that of unemployed graduates.

The study findings have both theoretical and practical significance. First, they answer the question on the moderating role of socio-demographic factors in the relationship between employability skills and the employability of new graduates (Blasko et al. 2002; Sullivan, 1999). Second, while most employability studies focus on regular employees (Potgieter and Coetzee, 2013; Juhdi et al. 2010; Finch et al. 2013), this study adds to the current understanding of how entrepreneurship education influences the employability of graduates entering the labour market for the first time. The study also shows that the acquisition of employability skills is an outcome of participating in an entrepreneurship course supporting the conclusions of Charney and Libecap (2000) and Zheng and Liu (2011).

From the practical point of view, first entrepreneurship needs to be studied as a subject at different levels of education, because of its impact of enhancing specific employability skills (Zimmerer and Scarborough, 2008). Second, the study disagrees with previous studies on graduates' work experience, such as those by Groot and van den Brink (2000), which indicate a positive influence of work experience on external employability, calling for further research in this area.

The rest of the chapter is organized as follows. First the hypotheses are developed. This is followed by a description of the research methods including the study measures and variables. The last section presents the results, discusses the findings and draws conclusions.

## 5.2 Theory and Hypotheses

Literature identifies three different perspectives of employability; the socio-economic perspective – the ability of different labour force groups to gain and maintain employment (McQuaid and Lindsay, 2005 pg. 209), the organizational perspective – where recruiters through different approaches attract competent people to attain organizational goals (Nauta et al. 2009), and the individual perspective, which includes individual dispositions, skills, attributes and behaviours that improve a person's suitability for appropriate and sustainable employability (Hillage and Pollard, 1998; Forrier and Sels, 2003; Coetzee, 2008; Fugate et al. 2004; Yorke and Knight, 2007). Employability is also influenced by institutional factors such as education, reflected in the human capital theory (Becker, 1964), and socio-demographic factors (Blasko et al. 2002). In relation to employability, this study focuses on the third perspective of individual disposition and the role of education in enhancing the employability of graduates.

The model developed by McQuaid and Lindsay (2005, pg. 209), for example, asserts that three interrelated components influence employability: individual factors (in particular skills, competencies, attributes, qualifications and educational attainment), socio-demographic factors (such as family and caring responsibilities, access to resources) and external factors related to labour demand conditions (macroeconomic factors, vacancy characteristics, recruitment factors) and enabling support factors (such as accessibility of public services and job-matching technologies). Studies also show that employability is influenced by specific factors such as age (Van der Heijden, de Lange, Demerout and Van der Heide, 2009b), experience and tenure (Groot and van den Brink, 2000; Allen and van der Velden, 2001; Gault et al. 2000), parents' occupation and level of education (Blasko et al. 2002), individuals' background (Tomlinson, 2007) and level of education (Behrenz, 2001; Fugate et al. 2004), where the length and content of the training has an impact on the movement of human capital and employability. Additionally, education predicts an applicant's expected training costs, and as such is regarded as a positional good (Hirsch, 1977) and employers prefer job seekers with the lowest training costs. Building on this, it can therefore be expected that highly educated job applicants possess higher levels of adaptability and have greater learning abilities views advocated by Spence (1974) and Pavlin (2010).

Factors such as gender, socio-economic background of various levels, educational qualification and specialization also influences employability (see Blasko et al. 2002; Allen and

van der Velden, 2001). These attributes are used by employers to screen and select job applicants and hence can be interpreted as antecedents for employability. These factors also explain the rationale behind success in obtaining a job among graduates possessing similar levels of educational qualification. Employability also depends on continuous learning and the ability to acquire skills through lateral rather than upward career movement in various organizational contexts (Scholarios, Van der Heijden, Van der Schoot, Bozionelos, Epitropaki and Jedrzejowic, 2008). This means individuals need to be involved in employability and competence development activities to enhance their functional, learning and career competencies. According to Forrier and Sels (2003), the activities encompass first, formal training, second, on-job learning, (De Vos et al. 2011) and third, career development initiatives (Van der Heijde and Van der Heijden, 2006).

Based on these prior studies, the study develops a theoretical rationale for how education, in particular entrepreneurship education, graduates' socio-demographic factors (gender, parents' education and occupation) and work experience moderate the relationship between employability skills and employability. The study first discusses the relationship between employability skills and employability and why the latter is influenced by employability skills.

### **5.2.1 Employability skills and Employability of new graduates**

As earlier discussed, employability skills are the core dimension of employability, the concept that contributes to career satisfaction and success in an increasingly competitive global environment (Coetzee and Beukes, 2010). Following changes in the labour market brought about by globalization and technological advancements (see Datta et al. 2007; Gonczi, 2006), organizations pay little attention to the growth and professional welfare of their employees. Thus, the development of individual competencies and employability has to be done by the individuals themselves (McQuaid and Lindsay, 2005). Studies show that employees with highly developed skills are in great demand (Clarke and Patrickson, 2008; Rosenbaum and Person, 2003) and are more employable (Fugate et al. 2004). This has spearheaded employability skills development programmes (ESDPs) within HEIs (Yorke and Knight, 2004; Hopkins, Raymond and Carlson, 2011; Gault et al. 2000) with the objective being to make graduates appealing to multiple employers across multiple work contexts and disciplines (Curtis and McKenzie, 2001).

Though the definition of employability skills and attributes varies, (see Yorke and Knight, 2004; Rychen and Salganik 2001; Lorraine and Sewell, 2007; SCANS, 1991; Andrews and Higson, 2008), research shows that all employability skills cluster in workplace situations of all kinds and they need to be developed holistically by individuals (Moy, 1999). For entry-level jobs, associated with young job applicants who lack work experience, employability skills transpire during the recruitment process (Canny, 2004; Johnson and Burden, 2003; Fuller et al. 2005). A study by Snape (1998), for example, found out that the common selection criteria for young applicants being interviewed include approach to work (timekeeping, hardworking, motivation and commitment), approach to training (ambition and willingness to learn), personal characteristics (stable personal circumstances, reasonably mature and taking initiative in non-working life) and the possession of skills (basic literacy and numeracy, and social and job-specific skills). Other qualities less frequently mentioned are life and work-related experience, linguistic skills and individuals' ability to carry out tasks without a lot of supervision.

Employers also rely on signals such as the CVs which best indicates the knowledge and skills a person obtained through formal studies. The CV or application form infers an applicant's level of soft or employability skills and is the basis on which potential applicants are short-listed for interview (Earl, Bright, and Adams, 1998). There is a contradiction, however, that not always what is stated in the graduate's CV correlate with superior performance on the job. In this regard, and according to McClelland (1987), the deeper attitudinal factors (non-conscious) are the ones that correlate with long-term job performance. The attitudinal factors enable one to effectively interact with the environment and comprise self-concept, social role, traits and social motives, with the last two more reliably correlating with long-term performance.

While work experience is likely to be assessed during the application process (submission of a CV and relevant documents), personal traits and attitudinal factors are most commonly assessed by subjective judgment during the interview process (Devins and Hogarth, 2005). A study by Devins and Hogarth (2005) found that the interview enables employers to assess personality, oral communication, self-expression, command of language and how sociable the applicant is when faced with an interview panel, attributes that cannot be adequately appraised via an application form or a CV. Besides facilitating the recruitment process, graduates with employability skills adapt to the workplace culture smoothly, use their abilities and skills to help the organization and can participate in innovative teamwork (Little, 2001).

In view of these arguments and previous research on the relationship between employability skills and employability (Potgieter, 2012; Juhdi et al. 2010; Finch et al. 2013), the study proposes a positive relationship between employability skills and the employability of new graduates.

*H1: Employability skills have a positive impact on the employability of new graduates*

### **5.2.2 Characteristics of Entrepreneurship education as a moderator**

Entrepreneurship education is defined as the process of developing individual's ability, knowledge, skills and attitudes to enable for the recognition of commercial opportunities and their realization through business plan write up and conducting other related entrepreneurial activities such as market research (Neck, Greene & Brush, 2014). Entrepreneurship skills and attitudes are of interest to this study and adopts attributes such as initiative, innovation and creativity as advocated by Rae (2007). Though the terms employability, entrepreneurship and the related skills have been used interchangeably in the past (Watts and Hawthorn, 1992), each has a substantial literature (Tan and French-Arnold, 2012; Fayolle and Klandt, 2006). For instance, there is growing evidence that entrepreneurship skills also referred to as enterprise skills fall into a broader category of employability skills and attributes and signal managerial competences as well as entrepreneurial ability (DEST, 2002; DEST, 2006; CBI, 2012).

Research on entrepreneurship education has focused on the curriculum and the objectives of entrepreneurship courses (Grant, 1998; Scott et al. 1998; Matlay, 2008), course titles (Solomon, 2007; Gerba, 2012; Sabokwigina, 2008), the target group (Gorman et al. 1997; Block and Stumpf, 1992) and the outcomes (Mwasalibwa, 2010). There seems to be agreement about the objectives of entrepreneurship education, irrespective of the study discipline. These include, among others, creating awareness of entrepreneurship, increasing entrepreneurial attitudes and skills, and training students in what is needed to start up a business and manage its growth (EU 2008; Mwasalibwa, 2010). In terms of entrepreneurship education outcomes, these are reflected in behavioural and attitudinal changes and vary depending on the course objectives and the target group. Several studies have attempted to measure the impact of entrepreneurship education outcomes (Fayolle et al. 2006, Pittaway, Hannon, Gib and Thompson, 2009). As summarized by Mwasalwiba (2010) from 17 published articles, the most common outcomes of students' participation in an entrepreneurship education course, in order of preference, are the real start-



ups by graduates, a better academic performance of students in terms of GPA, increased attitudes and intentions to act and contribute to society through technology transfer.

Studies have also shown that entrepreneurship education impacts the development of employability skills and employment performance, that means behaviours and outcomes that employees engage in or bring about that are linked to and contribute to organizational goals (Campbell, 1990; Viswesvaran and Ones, 2000; Zheng and Liu, 2011). For example, a study by Zheng and Liu (2011) confirms that entrepreneurship education has a positive effect on employment performance. The findings link entrepreneurship and employability research and provide a theoretical underpinning to the concept of encouraging entrepreneurship education to drive employability prospects. Another study by Charney and Libecap (2000) also shows that business start-ups established by graduates who majored in entrepreneurship have more sales than those of their counterparts. Moreover, entrepreneurship graduates differ from non-entrepreneurship graduates in terms of thinking, innovation ability and know-how and consequently have more opportunities with advanced technologies.

There is also a view that entrepreneurship education if taught experientially enhances successful transition of graduates to the labour market (Gault et al. 2000). Additionally, there is a link between studying entrepreneurship education and the production of employable graduates who possess skills such as innovation and creativity thus bringing about entrepreneurial outcomes at the individual, organization and society level (Zimmerer and Scarborough, 2008). Apart from studies establishing the status of entrepreneurship courses in business schools (Sabokwigina, 2008; Solomon, 2007) and non-business schools (Hynes, 1996; Fulgence, 2015b), studies on the impact of entrepreneurship education on the development of specific employability skills are limited (Viswesvaran and Ones, 2000; Zheng and Liu, 2011). A starting point to shed more light on that issue could be studies showing that entrepreneurship education has a positive impact on entrepreneurial outcomes such as entrepreneurship skills, entrepreneurial attitudes, intentions and motivation (Matlay, 2008; Kolvereid and Moen 1997; Oosterbeek et al. 2010).

Based on these arguments, and the fact that the outcomes of entrepreneurship education fall within the broad category of employability skills, the study proposes:

*H2a. There is a positive relationship between employability skills and employability that is moderated by an individual's participation in an entrepreneurship education course*

*H2b. There is a direct relationship between entrepreneurship education and employability skills*

*H2c. Graduates who have taken an entrepreneurship course have a great chance of being employed than those who have not*

*H2d. Graduates who have taken an entrepreneurship course are more satisfied with their employability skills than graduates who have not*

### **5.2.3 The effect of socio-demographic factors**

Socio-demographic factors to mention a few include gender, age, level of education, employment status, parents' profession, occupation and marital status (Koukouli et al. 2002). Studies show that there is a link between socio-demographic factors such as age and gender and individual's employability (Potgieter, 2012; Blasko et al. 2002). Such factors also influence individuals' education attainment and the labour market outcomes such as subsequent employment and work progress. This study limits the factors into three variables; gender, parents' level of education and parents' employment status. Each of these factors is discussed separately showing how they moderate the relationship between employability skills and employability.

#### **5.2.3.1 Gender**

The study proposes that gender moderates the relationship between employability skills and employability. As stated by Richardson (2008; quoted from Stuart et al. 2011, pg. 204), the proportion of female graduates attaining tertiary education has increased from 30 percent in 1958 to 57 percent in 2005/6 which according to (Finch et al. 2013, pg. 681) has been brought about by the public policy advocacy and demographic shifts. As well and to remain sustainable in the labour market educated and skilled man power are needed (Datta, 2001; Hitt et al. 2001; Lin, Tsai, Joe and Chiu, 2012). In developing countries like Tanzania, this expansion has taken place over the past decade and in particular enrolment increased by 102 percent from the late 1990's to 2010 (TCU, 2012). With this expansion, gender differences in terms of degree attainment are evident, with women more likely than men to obtain a good degree (Richardson and Woodley, 2003; Rudd, 1984; Smith and Naylor, 2001). Studies also indicate that the gender gap in degree attainment varies by age, subject of study and ethnicity (see Richardson and Woodley, 2003; Naylor and Smith, 2004).

In relation to employability skills, research on gender differences produces contradicting results. For example, although studies by Shukla (2012), Chithra (2013) and Omar et al. (2012) indicate no significant difference in employability skills as a function of gender, they established that specific constructs of employability skills, such as thinking and technology skills, differ as a function of gender, with male students obtaining significantly higher scores than female students. A study by Kazilan, Hamzah and Bakar (2009) measured different skill attributes and produced different results, indicating that basic skills and information skills differed significantly as a function of gender, with female students exhibiting greater levels of these skills than male students. Another study by Bakar and Hanafi (2007) also found that basic skills and personal quality attributes differed significantly between male and female respondents, without indicating in concrete the gender differences. A study by Ajiboye et al. (2013) also found that there is no significant difference in the perception of university lecturers of the influence of higher education on employability and the related skills based on gender.

Although literature as regards gender differences in skills and attributes is limited, a study by Shafie and Nayan (2010) indicates that, while females more likely than males view communication skills as employability skills, males place more emphasize on technological and process skills as employability skills aspects. These views are also shared by Ding, Murray, and Stuart (2006). Other studies on gender differences, such as those by Clark (1997) and Sousa-Poza and Sousa-Poza (2003), have concluded that women in most countries have lower expectations than men and this makes them more satisfied than men in some aspects. The gender gap in terms of women's expectations was however reduced by half from 1991 to 2000 in the UK (Sousa-Poza and Sousa-Poza, 2003 as quoted from Mora and Carbonell (2009, pg. 4).

In relation to the impact of gender on employment prospects and employability, some studies are of the view that male graduates are more employable and find a job more easier than female (Zhou, 2003). Other studies show that males from well-known institutions have a lower likelihood of employment than females from the same institutions (Connor, Dawson, Tyers, Eccles, Regan, and Aston, 2001; Kong, 2011). There is, however, supporting evidence for the latter. For example, a study by Kong (2011) indicates that six months after graduation female graduates are more likely than male graduates to have entered employment or gone for further studies. Though females are recruited in larger proportions than males in many organizations, they are underrepresented at senior levels in organizations (Brooks, 1997; Fulgence, 2015b).

These findings can be attributed to gender roles, making it difficult for females to balance family concerns and their career due to long working hours (Ding et al. 2006).

Summing up these arguments, on the one hand, the study expects female graduates first to have a higher level of employability and employability skills due to their higher level of satisfaction with the skill attributes (Clark, 1997). Secondly, it is expected that females are more employable than males not because they possess more employability skills, but due to various national and international policies that advocate gender balance in different work organizations (Villa and Smith, 2009). On the other hand, the study expects males with a higher level of employability and employability skills to be more employable than females. The study thus proposes:

*H3a. Gender moderates the relationship between employability and employability skills*

*H3b. There is no significant relationship between male and female graduates as regards employability*

*H3c. There is a significant relationship between males and females as regards employability skills*

*H3d. Females are more satisfied with their employability skills than males*

#### **5.2.3.2. Parents' occupation and level of education**

Researchers show that socio-background factors like parental role models and the family support system to have a strong influence on the behaviour and attitudes of an individual's learning process both within and outside the school (Igwe, 2000; Oyekan, 2000). Studies also show that the most important socio-demographic factors that influence children's attainment are parents' education, aspirations and income (Bronfenbrenner, 1979). Studies by Feinstein, Duckworth and Sabates (2004) and Hills, Sefton and Stewart (2009), for example, show a strong link between level of parents' literacy and numeracy and the children intellectual outcomes. These studies specifically show that, when other factors are taken into account, mothers' education has a significant effect on the cognitive stimulation of children at home, with the effects being strong for the lowest qualified parents.

Studies also show that the social class background (parent's occupation, profession, ethnicity and the like) influences individuals' success in the world of work (Smith and Naylor, 2001) and this has a differential effect on the employment prospects of graduates from different

backgrounds (Blasko et al. 2002). According to Blasko et al. (2002, pg. 5), graduates from lower socio-economic backgrounds (measured by parents' occupation and education), irrespective of gender, receive lower salaries than graduates from more advantaged social backgrounds and they are less likely than other graduates to perceive that their jobs require a university degree. Additionally, while males from these backgrounds are also more likely to experience a period of unemployment and less likely to be in managerial and professional jobs than their middle-class counterparts, women do not appear to experience these additional disadvantages. Other studies by the Department of Education and Employment (DfEE, CSU, AGAS and IER, 1999) come to a similar conclusion, adding that graduates with parents in partly skilled occupations are 30 percent more likely than others to have a non-graduate job 18 months after graduation, and this risk increases to 80 percent for graduates whose parents are unemployed.

Lower labour market outcomes experienced by graduates from these backgrounds are partly attributed to the type of institution they studied at, the subjects they studied, the class of degree they obtained and their entry qualifications. Studies further show that family background as identified with the family's income and the family's business influences graduates' labour market outcomes. Specifically, a study by Timmons (1994), for example, establishes that there is a greater possibility of children from self-employed parents to establish their own business than their counterparts.

Based on these arguments, the study expects that parents' occupation and level of education will influence graduates' labour market outcomes and employability prospects differently. The study therefore proposes:

- H4a. Parents' occupation moderates the relationship between employability skills and graduates' employability*
- H4b. Parents' level of education moderates the relationship between employability skills and graduates' employability*
- H4c. There is a significant difference between graduates' level of employability skills and employability as a result of parents' level of education.*
- H4d. There is a significant relationship between graduates with employed parents and those without formally employed parents as regards employability skills and employability*

#### **5.2.4. The effect of pre-graduate work experience**

The relationship between pre-work experience also termed work-integrated learning (Jackson, 2013) as a potential for developing employability skills and enhancing graduates' employability has been studied extensively (Gracia, 2009; Juhdi et al. 2010; Omar et al. 2012; Martin, Rees, and Edwards, 2011; Orner, 2009; Munro, 2007; Hopkins et al. 2011; Gault et al. 2000; Gabris and Mitchell, 1989). The majority of the studies show a positive and significant difference between students' employability skills and students' work experience, with a few exceptions such as that of Omar et al. (2012). The study therefore proposes that pre-work experience will moderate the relationship between the employability skills and employability of new graduates. Pre-graduate work experience may include on-campus experiential learning opportunities and academic programme activities, which integrate theory and practice (Finch et al. 2013). Other forms of experiences include engagements in both formal and informal organized activities such as field works, internships, work based projects and part-time employment (Bates, 2011).

Work experience is valuable, first because it provides some valuable skills and professional practice that cannot be acquired through traditional forms of studying (Gabris and Mitchell, 1989). Specific skills outcome, as advocated by Jackson (2013) and Stuart et al. (2011) include teamwork, communication, self-management, problem solving, cultural fit, leadership, commitment and originality. Indeed, appropriate work experience provides industrial exposure and is used by employers as a selection criteria when recruiting graduates (Mason, 1999). Graduates' work experience is also viewed as an indicator of workplace readiness (Andrews and Higson, 2008; Jackson, 2013).

Studies on graduate work experience, such as that by Mason et al. (2009, pg. 1), further show that structured and formalized work experience positively influences graduate's ability to secure a graduate level job within six months after graduation. There is also a relationship between fields of study and the nature and length of experience gained. A study by Blasko et al. (2002, pg. 48) for example, although it could not differentiate between planned work experiences (organized by higher education studies) and work experience gained from vacations, establishes that spending some months in employment – either related or unrelated to the studies improve the labour market outcomes of graduates to some extent, with the biggest positive impact being associated with work done over a longer period (over 8 months during the period of studies) that is related to the studies.

There is also a view that the nature of work one has engaged in has an influence on both employability skills development and employability. A study by Tran (2012), for example, shows that the experience obtained from a part-time informal job such as tutoring, café assistant and some other kind of simple work in the retail market is claimed by most students and graduates to be irrelevant to the professional experience expected by employers. There is also a view that even participation in formally organized work-based learning does not necessarily enable graduates to acquire work-related experience. For example, Tran (ibid.) further shows that, although students' participation in some types of professional internship is compulsory for about a month as part of the curriculum of HEIs, the work done during the internship does not give them much understanding of work in the future, since interns are not often given real work tasks. A similar study revealed that employers do not give interns work requiring the use of their professional knowledge since giving them some real work would take time to train them and they would not be working long for the organization.

Summing up the arguments and with the support of empirical studies, graduates with supervised work experience are expected to acquire basic employability skills and thus possess a higher level of employability. Such experience can be obtained from practical training and other forms of field-related work. However, and based on the views of Blasko et al. (2002) and Tran (2012) on the duration of practical training and the nature of the tasks given, the study proposes:

- H5a. New graduates' work experience moderates the relationship between employability and employability skills*
- H5b. There is a significant difference between graduates with structured work experience and those without such experience as regards employability level*
- H5c. There is a significant difference between graduates with structured work experience and those without such experience as regards their satisfaction with their employability skills*

### **5.3 Method**

The purpose of the study is firstly to examine the effect of studying entrepreneurship on employability and secondly the effect of employability skills (core personal qualities, process skills, innovative and enterprising and attitude) on employability. On top of that, it is of interest to know whether the effects of employability skills on employability are moderated by socio-

demographic factors (gender and parents' level of education and occupation) and pre-graduate work experience.

The study population consists of HEI first degree graduates, both employed and unemployed in Tanzania. The study being done sequentially, it relied on the data of Tanzanian employers previously used by Fulgence (2015a) with additional data obtained from the Tanzania Association of Employers. Unemployed graduates were obtained through recruitment agencies and associations that engage in the graduate recruitment process. In line with the study objectives, the graduates selected were those who graduated from 2011 to 2013 since they fall within three years after graduation (Abel et al. 2014). The researcher contacted employers' human resource managers for their permission to ask their employed graduates if they would participate in the study. After being briefed about the purpose of the study, graduates willing to participate in the study were involved.

To collect the data, a questionnaire was designed and circulated both physically and online to 800 graduates. The questionnaire consists of three parts, the first part asks for information on graduates' employment status and self-assessment of their employability. The second part requests information on the importance of employability skills in relation to employability and how satisfied the graduates are in demonstrating the skills. The last part seeks information on their profile and in particular demographic data regarding the degree programme, specialization, entrepreneurship course(s) taken and year of graduation. Both continuous and categorical scales are used to measure the study variables. Two weeks were provided for the respondents to finish the questionnaire. In total, 614 graduates filled in the questionnaire, a response rate of 76.7 percent. After omitting missing values, the final sample comprised 402 graduates (65.3 percent male and 34.7 percent female), most graduating from public universities.

To ensure that the sample is representative, the data were compared with those from the TCU, which monitor the enrolment of students and the quality in HEIs. While the study sample consists of 69.6 percent of public university graduates, data from TCU, 2012 show that 68.7 percent of students were enrolled in public universities in 2010/2011. On the same lines, while the study data comprise 65.3 percent of male graduates, the data from TCU (2012) show that 65.1 percent of male graduates enrolled in both private and public HEIs in 2010/2011. Based on these statistics the study sample represents the characteristics of Tanzania higher education graduates.



### **5.3.1. Measures**

In a first step the study examines the relationship between entrepreneurship education (an independent variable measured by indicating whether one has taken the course or not) and employability (a dependent variable measured by an instrument) (Model 1). Then, the study analyzes the relationship between employability skills (an independent variable measured by an instrument) and graduate employability (a dependent variable measured by an instrument) (Model 2). In all models, the researcher controlled for the moderating effects of socio-demographic factors and graduates' work experience. Since no objective data were available to measure the study variables, the study relied on self-reported measures. Research on employability and employability skills supports the reliability and validity of self-reported measures (Rothwell and Arnold, 2007; Groot and van den Brink, 2000). In the next section the procedures that were taken concerning the study variables to ensure the quality of the measures are discussed in depth.

#### **5.3.1.1. Dependent Variable - Employability**

The study uses two variables (internal and external employability) to measure employability as adapted from Rothwell and Arnold (2007). The variables have been found to be analytically useful and have been theorized in the literature (Hillage and Pollard, 1998; Mallough and Kleiner, 2001). The variables have also shown validity in prior research, as reflected in studies by (Juhdi et al. 2010; Rothwell and Arnold, 2007; Sanders and de Grip 2004). The study instrument consists of 16 items (five items for internal employability skills and eleven items for external employability skills). The respondents answered each item on a five-point Likert scale from 'one' strongly disagree to 'five' strongly agree. Both positively worded and negatively worded items are included to control for affirmation bias (Cassidy, 2006). The items address issues relating to; skills and behaviours that contribute to effective performance (Hillage and Pollard, 1998; Van der Heijden, 2002), individuals' ability to respond effectively to changing circumstances (Rajan, Eupen and Jaspers, 1997), individuals' network ability (Fugate et al. 2004) and job-seeking skills and labour-market knowledge (Hillage and Pollard, 1998).

Since the instrument was both modified and combined from different sources validity and reliability needs to be established during data analysis. Factor analysis was used to determine the concurrent and convergent validity (Campbell and Fiske, 1959) and these were within the

recommended levels. Reliability of the employability items was established through the coefficient alpha and the score was 0.754, which exceeded the recommended level of 0.70 (Nunnally, 1978).

### **5.3.1.2 Independent Variables**

#### **5.3.1.2.1 Employability skills**

The study uses a combination of employability skills items modified from the scales developed by Andrews and Higson (2008); Lorraine and Sewell (2007); Yorke and Knight (2004) and Coetzee (2010). Some of the scale items, for example, personal qualities, enterprise and initiative have been used to measure self-perceived employability of students in South African HEIs (see Potgieter, 2012; Coetzee, 2010). The study scale is made up of 34 items that fall within five sub-scales. The sub-scales consist of core skills (ten items), personal qualities (six items), process skills (six items), initiative and enterprise (six items) and attitude (six items). Respondents rated each item on a five-point Likert scale. The higher the index value, the more balanced were the skills of the responding graduate.

The scale items met the construct validity criteria after the exploratory factor analysis. The measure was thereafter assessed for reliability to reduce the effects of measurement error (Siemsen, Roth and Oliveira, 2010). The Cronbach alpha score was 0.93, surpassing the recommended level of 0.70 (Nunnally, 1978). In relation to other related studies, Cronbach's alpha was higher than that 0.85 of Omar et al. (2012) and slightly lower than the reliability estimate of 0.95 obtained by Kazilan et al. (2009) and 0.96 by Bakar and Hanafi (2007). Reliability (internal consistency) of the sub-scale items ranged between 0.77 and 0.86 for each sub-scale more or less resembling the alpha of 0.78 and 0.90 by Coetzee (2010).

#### **5.3.1.2.2 Entrepreneurship Education**

To assess graduates' participation in an entrepreneurship education course, as discussed earlier, the study included a binary variable in the regression model to indicate whether a graduate has taken an entrepreneurship course in the university curriculum. The binary variables were '0' for not studied the course and '1' for the graduates who studied an entrepreneurship course.

### **5.3.1.3 Work experience**

The study also included a binary variable, enabling the study respondents to indicate whether or not they have had some work experience. This included '0' for experienced graduates (7 months and above) and '1' for graduates lacking work experience (0 – 6 months). Most university programmes allow students to engage in fieldwork attachments, and these can range from four to twelve months depending on the university structure and programme. However, the study did not establish the nature of the work experience and this can form an area for further research.

### **5.3.1.4 Controls**

The study included gender, parents' occupation and level of education as socio-demographic factors that influence employability and employability skill attributes. To control for these variables, the questionnaire contained an additional item that measured respondents' demographic factors. All control variables are treated as binary variables, with gender having values '0' and '1' for male and female, respectively. The study used the categorization by Blasko et al. (2002), of parents' level of education and occupation. The respondents indicated their parents' occupation measured by their employment sector, whether they were civil servants (binary digit 1) or self-employed (binary digit 0), with the latter category indicating if one parent is employed or self-employed. For level of education, the respondents indicated whether their parents had received primary and secondary (binary digit 0) or post-secondary education (binary digit 1).

### **5.3.2 Data and Construct Validity**

The study seeks to assess the influence of employability skills on employability, both of which are attitude-related variables and hence the need to control for the effects of Common Method Variance (CMV). CMV causes observed correlations among variables to differ from their population values (Doty and Glick, 1998, Siemsen et al. 2010) and this poses a significant threat to validity (Cote and Buckley, 1987; Doty and Glick, 1998). Both procedural measures with respect to questionnaire design and statistical remedies are used to cancel out the effect of CMV (Lindell and Whitney, 2001; Krishnaveni and Deepa, 2013).

To develop and validate the construct measures, the study followed the procedures recommended by Churchill, (1979). The domain constructs were specified, in particular employability and employability skills. Sample items were generated from literature searches

and surveys and the items were reviewed by experts to ensure the clarity of wording and content validity. The instruments were pre-tested and the differences were incorporated. The pre-test respondents were not included in the study. To reduce social desirability effects, the questionnaire instructions informed the respondents that there were no right or wrong answers and that they should respond to the questions freely and as honestly as possible.

The study also determined the number of factors that are necessary to account for the variance in the variables using Harman's single factor test. Under this procedure, all the variables in the study were loaded into confirmatory factor analysis as recommended by Bagozzi and Yi (1990). Under this technique, the emergence of a single factor indicates that a substantial amount of CMV is present (see Siemsen et al. 2010; Anderson and Bateman, 1997; Greene and Organ, 1973; Schriesheim, 1979). For the dependent variable, factor analysis revealed the presence of 3 distinct factors with eigenvalues greater than 1.0, accounting for 48.235 percent of the total variance. The first largest factor was found to account for 21.47 percent of the variance. For the independent variable, nine factors were extracted with eigenvalues greater than 1, accounting for 65.73 percent of the total variance. The first factor explained only 11.237 percent of the total variance and therefore no general factor was apparent for both dependent and independent variables.

To check for response bias (Fowler, 1992), a few non-respondents were contacted by phone to assess whether their responses differed significantly from the study respondents. Additionally, focus group discussions were held with unemployed graduates and analysis of the findings portrayed what was reflected in the survey findings, indicating limited response bias. The focus group information was not included in the final analysis.

The study used hierarchical step-wise multiple regression to analyze the data and test the hypotheses. Since the questionnaire was delivered for graduates, the unit of analysis was the graduate level rather than the study institutions. The employment status and other demographic factors including work experience were assigned as controls as elaborated in section 5.3.1.4. The study institutions and the degree programs were controlled for in chapter four. The study sample was therefore split into two groups of employed and unemployed graduates. T-test was used to compare variations in the groups of the study variables. The t-test was also conducted to confirm the regression results.

There was also a need to calculate the marginal effect of the regression results. This measures the change on the dependent variable associated with an increase of a continuous independent variable by 1 (see Green, 2003; Wang, 2002). According to Wang (2002), the marginal effect of an independent variable X on a dependent variable Y can be computed if the independent variable is continuous, as this allows for the differences between individuals and/or groups to be seen. In this study therefore, the marginal effect of the dependent variable (employability) was calculated against the mean of employability skills as the independent variable. The possession of employability skills positively and significantly influences employability, making it a variable of interest in this study. The study therefore establishes the marginal effect and in particular how likely (or unlikely) the employability of a graduate will increase by 1 if the hypothetical mean for employability skills is below and above the observed mean. The effect was also computed in relation to the graduates' employment status to see if there were any differences between the groups.

The descriptive statistics rely on the graduates' data, as discussed in Table 4.5 (Fulgence in press). Some descriptive data are however added to reflect the newly introduced variables in this chapter. Building on the response rate discussed in section 5.3 and the study variables discussed in the methodology section, the results section first presents the descriptive statistics, followed by the t-test results. Regression is used to test the study hypotheses and the marginal effect of the selected variables is calculated to measure the effect of the selected variable on the dependent variable.

## **5.4 Results**

### **5.4.1. Descriptive statistics and correlations**

Table 5.1 presents descriptive statistics of the study respondents. In relation to the demographic and social background, descriptive statistics show that only 32 percent of the respondents had parents with post-secondary education. Additionally, less than a third (28 percent) of the respondents had parents who were both employed. The rest had either both self-employed parents (42.3 percent) or either employed or self-employed parent (20.4 percent). Almost all graduates were in their mid-20s', showing that new graduates are young with their age ranging between 20 and 30 years (Abel et al. 2014). On average, 67 percent of the study respondents pursued an entrepreneurship education course in the university curriculum. The course names

ranged from entrepreneurship to small business, indicating the diversity of entrepreneurship courses worldwide (Solomon, 2007; Gerba, 2012; Kabongo and Okpara, 2010).

**Table 5.1 Respondents' characteristics**

Demographic Variable	Frequency	Percentage (%)
Age	18 – 34 years	98.4
	35 – 44 years	1.4
	45 – 54 years	0.2
Gender	Male	65.32
	Female	34.68
Parents occupation	Civil servants	27.9
	Self employed	42.3
	Others	29.8
Parents' level of education	Bachelor degree and above	32.9
	Professional qualifications	5.1
	Other qualifications	62.0
Entrepreneurship Education	Studied	66.7
	Not studied	33.3
Work experience	0 – 6 months	63.5
	7 months – 2 years	31.5
	3 – 5 years	3.3
	6 years and above	1.2

**Source:** Survey data

The study further shows that 63.5 percent of the graduates lack of work experience with females having less work experience than males. A study by Chithra (2013) on the same subject establishes that 84.44 percent of prospective graduates lack work experience. The same study indicates that females have less work experience (8% less) compared to their male counterparts.

Table 5.2 presents the study descriptive statistics and correlations of the independent variables. To test for multicollinearity, Variance Inflation Factor (VIF) was computed with the results ranging between 1.11 and 1.32. This indicates very low levels of multicollinearity and as such this was not a problem for the further analysis (Neter, Kuther, Nachtsheim and Wasserman, 1996).

#### **5.4.2 T-test results**

Table 5.3 presents the t-test results. First, the results show a significant difference between males and females with regard to employability skills, with females having a higher level of these skills. Second, the study results surprisingly show a significant difference between experienced

**Table 5.2. Summary statistics and Correlations**

	N=402	1	2	3	4	5	6	7	8	9	VIF
<b>Dependent variable</b>											
1	Employability	1									
<b>Independent variable</b>											
2	Employability Skills	.225***	1								1.03
<b>Other variables</b>											
3	Satisfaction with ES	.259***	.403***	1							1.21
4	Entrepreneurship Education	.217***	-.067	.134***	1						1.02
5	Work experience	-.042	-.137***	-.150***	.071*	1					1.03
6	Parents' Occupation	.024	-.074	-.041	.097**	-.029	1				1.05
7	Parents' Education	.021	-.080*	-.074	.026	.011	0.215***	1			1.04
8	Gender	-.011	-.074*	-.063	-.004	-.066*	.016	-.019	1		1.01
9	Age of graduate	.079*	.009	-.041	-.001	.061	-.089**	-.105**	.000	1	
	Mean	3.542	4.348	4.039	0.666	0.635	0.279	0.329	.653	.984	
	S.D	.450	.494	.632	.472	.482	.449	.470	0.476	.124	

\*\*\*Correlation is significant at 0.01 level (2-tailed)

\*\*Correlation is significant at 0.05 level (2-tailed)

\* Correlation is significant at 0.10 level (2-tailed)

**Table 5.3. T-test results Employability and employability skills difference between study variables**

	A: Gender			B: Parents' Level of Education		
	Females	Males	Diff	Non-graduate parents	Bachelors' and above	Diff.
Employability	3.555	3.544	.010	3.532	3.553	-.021
Employability skills	4.397	4.322	.075*	4.369	4.284	.085*
	C: Entrepreneurship Education			D: Work experience		
	Not studied	Studied	Diff.	No experience	With experience	Diff.
Employability	3.411	3.617	-.205***	3.566	3.528	.039
Employability skills	4.401	4.331	-.069	4.441	4.299	.141***
Satisfaction with ES	3.919	4.131	-.122***	4.170	3.990	.179***

Source: Own data (2012/2014) \*\*\*p< 0.01, \*\*p< 0.05, \*p< 0.10 ES stands for Employability skills

and inexperienced graduates regarding employability skills and satisfaction with the skill attributes, with the mean of graduates lacking work experience being higher in both variables. This gives a first idea that work experience probably does not go along with a higher level of employability skills. Maybe it exposes graduates to the world of work and particularly useful networks and professional practice.

Third, and in relation to socio-demographic factors, a significant difference is obtained regarding employability skills, as graduates with educated parents have a lower level of employability skills than their counterparts. Fourth, and in relation to entrepreneurship education, a positive and significant difference is observed concerning employability and satisfaction with employability skills, with graduates who pursued an entrepreneurship course recording higher scores than their counterparts. This gives a first hint that studying entrepreneurship can enhance graduates' employability and might enable them to be more satisfied with their employability skills.

The study also shows how specific employability skills and satisfaction with them differ as a function of gender and taking an entrepreneurship course. The findings in Table 5.4 show, firstly, except for the core and process skills, a significant difference between males and females regarding personal qualities, initiative/enterprise and attitude. Regarding the difference, females attach more importance to personal qualities, initiative/enterprise and having a positive attitude than the male counterpart.

**Table 5.4. T-test for gender versus specific employability skills**

(i) Specific employability skills (ii) Satisfaction with ES	(i) Gender			(ii) EE		
	Female	Male	Diff.	Not Studied	Studied	Diff.
Core Skills	4.225	4.288	-.063	3.950	4.022	-.071
Personal Qualities	4.494	4.389	.105***	4.211	4.181	-.106*
Process skills	4.461	4.412	.049.	4.049	4.198	-.148**
Initiative and Enterprise	4.373	4.256	.117**	3.755	4.071	-.316***
Attitude	4.501	4.424	.077*	4.038	4.236	-.198***

\*\*\*p< 0.01, \*\*p< 0.05, \*p< 0.10

EE stands for Entrepreneurship Education

Although specific research on gender differences in relation to having a positive attitude is limited, available literature on employability skills as a function of gender provides mixed results and this has been discussed in section 5.2.3.1. Positive attitude involves an individual's



disposition as regards work and has a positive effect on an organization's performance (Knight and Yorke 2004, Saari and Judge, 2004). According to Tan and French-Arnold (2012), having a positive attitude includes attributes such as proactiveness, hardworking, curiosity and strong motivation to work. No significant gender differences are observed in the relationship between employability and satisfaction with employability skills. Secondly, descriptive study findings reveal that, except for the core skills, graduates who took an entrepreneurship course are significantly more satisfied with their employability skills, with initiative and enterprise having higher levels than other skills (Table 5.4,  $\beta = -.316$ ,  $p < .000$ ).

Summarizing the t-test analysis, the results give an early indication of the relationship stated in Hypothesis 2c, that graduates who have taken an entrepreneurship course have a higher level of employability than those who have not. The results also provide some indication of the relationship stated in Hypothesis 2d, that graduates who have studied entrepreneurship are more satisfied with their employability skills than their counterparts. It is therefore possible that entrepreneurship education facilitates the development of employability skills, making graduates more satisfied with their skills and attributes.

In relation to parents' occupation, the results give some idea of the relationship stated in hypothesis 4c, that there is no significant difference between employability and employability skills that might have been attributed to parents' level of education. In relation to gender difference, the results provide some early indications of the relationship proposed in hypotheses 3b, that there is no significant gender difference in employability levels. Additionally, the results give evidence of the relationship proposed in hypothesis 3d that females are more satisfied with their employability skills than males.

Regarding work experience and the study variables, the results also provides first-hand information on what is stated in hypotheses 5b and 5c that there is a significant difference between graduates who have work experience and those with none as regards employability and employability skill levels. It is however surprising to note that graduates with no work experience might have a higher level of employability and may be more satisfied with their skills than their counterparts. The next regression results section provides some evidence to support or reject the stated hypotheses.

### 5.4.3 Regression results

With the regression analysis, without splitting the sample, first the study established the factors that influence employability (Model 1). Then employability was regressed on all variables which preceded it in the causal sequence, including employability skills (Model 2). Third, the sample was split to establish how employability is influenced by specific employability skills as a function of graduates' employment status, in particular, unemployed graduates (Models 3), employed graduates (Model 4) and the combined group (Model 5).

To summarize, the relationship of independent and dependent variables is shown in the following “overview models”:

Dependent Variable	Independent variables
Employability →	Work Experience + Parents' education + Parents' Employment sector + Gender + EE (Models 1)
Employability →	Work Experience + Parents' education + Parents' Employment sector + Gender + EE + ES (Model 2)
Employability →	Work Experience + Parents' education + Parents' Employment sector + Gender + EE + Core + Personal Qualities+ Process skills + Initiative and Enterprise + Attitude (Models 3, 4 and 5 for the unemployed, employed and the combined group, respectively).

As reflected in Table 5.5, the results provide evidence that entrepreneurship education positively and significantly influences employability (Model 1,  $\beta = .264$ ,  $p < .00$ ). The results further show that entrepreneurship education besides, significantly influencing employability, also moderates the relationship between employability skills and employability (Model 2,  $\beta = 0.27$ ,  $p < 0.01$ ) confirming hypothesis 2a. The results in model 2 further show that employability skills positively and significantly influence employability (Model 2,  $\beta = 0.159$ ,  $p < 0.01$ ) confirming hypothesis 1. Gender is not found to moderate the relationship between employability and employability skills, hence negating hypothesis 3a. The rest of the models also indicate that entrepreneurship education significantly and positively moderates the relationship between employability and employability skills (Model 3,  $\beta = 0.258$ ,  $p < .000$ ; Model 4,  $\beta = 0.196$ ,  $p < 0.001$ ) (Model 5,  $\beta = 0.245$ ,  $p < .000$ ).

Except in Model 3 ( $\beta = 0.136$ ,  $p < 0.10$ ), where parents' occupation positively and significantly influences employability, the results in models 4 and 5 negate hypothesis 4a, which states that parents' occupation moderates the relationship between employability and employability skills. Additionally, work experience significantly and negatively influences

employability, except for employed graduates (Model 4). This shows that employed graduates are employed not because of their work experience but because of some other aspects that contribute to their employability prospects. The results partly negate hypothesis 5a, which states that work experience moderates the relationship between employability skills and employability. It can also be possible that existing work placements are not well structured to enhance employability. The results also do not support hypothesis 4b, which states that parents' level of education moderates the relationship between employability skills and employability.

In relation to specific employability skills, the split sample results indicate that personal qualities, Model 3 ( $\beta = .169$ ,  $p < .10$ ), Model 4 ( $\beta = .178$ ,  $p < .10$ ), Model 5 ( $\beta = .154$ ,  $p < .05$ ) and attitude, Model 4 ( $\beta = .273$ ,  $p < .00$ ), Model 5 ( $\beta = .156$ ,  $p < .05$ ) positively and significantly influence the employability of graduates with attitude being not significant for unemployed graduates.

#### **5.4.4. The marginal effect testing**

In testing the marginal effect, the mean of employability skills as an independent variable was of interest in this study. The computations were based on the model 2 coefficients and did not reflect employment status. The hypothetical mean above the observed value (4.348) is 5 as discussed in the previous chapter (Fulgence in press). For the mean below the observed value, the proposed hypothetical mean values are 3, 2 and 1. This was important to observe how variations in employability skills mean affect employability. Table 5.6 presents the test results of the marginal effect of employability skills and are interpreted as a percentage increase or decrease in employability.

The marginal effect testing shows that a marginal increase in the employability skills mean above the observed one enhances individuals' employability by 12 percent. This means that the possession of employability skills increases individuals' employability, confirming the regression results in model 2 (Table 5.5). The results of the marginal effect for the employability skills mean below the observed value also indicate a 25.5 percent decrease in employability. Additionally, a further marginal drop in the mean of employability skills by 1 reduces employability by 44.5 and 63.4 percent, respectively. This means that a marginal change in employability skills by 1 indicates that there is almost a 20 percent decrease in individuals' employability. Building on the t-test results and the regression results, the marginal effect test results show that employability skills are important for enhancing employability.

**Table 5.5. Results of Hierarchical Regression Analysis**

N=402	Employability				
	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	3.420 (0.000)	2.696 (0.000)	2.806 (.000)	1.471 (.001)	1.979 (.000)
Work experience	-.030 (0.005)	-.080 (0.068)	-.322 (.000)	n.s.	-.111(.022)
Parents' Occupation	n.s.	n.s.	.136 (.072)	n.s.	n.s.
Parents' Education	n.s.	n.s.	n.s.	n.s.	n.s.
Gender	n.s.	n.s.	n.s.	n.s.	n.s.
EE	.264 (0.000)	.268 (0.000)	.258 (.000)	.196 (.003)	.245 (.000)
Employability Skills		.159 (0.000)	-	-	-
Core skills			n.s.	n.s.	n.s.
Personal Qualities			.169 (.077)	.178 (.091)	.154 (.034)
Process Skills			n.s.	n.s.	n.s.
Initiative and Enterprise			n.s.	n.s.	n.s.
Attitude			n.s.	.273 (.006)	.156 (.030)
R2	.0884	.1204	.3382	.1630	.1586
Adjusted R2	.0790	.1070	.2764	.1218	.1840
N	493	402	118	214	332

n.s: not significant

**Table 5.6 The marginal effect testing**

Study model	Mean versus coefficients	Observed mean for each variable						Σ of Average values (Marginal effects)	Employability (% increase / decrease)
		ES	EE	Experience	Parents' Occupation	Parents' Education	Gender		
	Observed mean	4.348	0.666	0.635	0.279	0.329	0.653		
	Regression coefficients	0.159	0	0.268	-0.08	0	0		
Model 2	Mean * coefficient	0.69	0.00	0.17	-0.02	0.00	0.00	0.84	
	Mean1 * coefficient 5	0.80	0.00	0.17	-0.02	0.00	0.00	0.94	12.35
	Mean2* coefficient 3	0.48	0.00	0.17	-0.02	0.00	0.00	0.62	-25.54
	Mean3*coefficient 2	0.32	0.00	0.17	-0.02	0.00	0.00	-0.47	-44.49
	Mean4*coefficient 1	0.159	0.00	0.17	-0.02	0.00	0.00	0.31	-63.43

Source: Survey data

## **5.5 Discussion**

The study aims to extend previous research on the relationship between employability and employability skills. First, the study addresses how entrepreneurship education influences employability and second how specific employability skills and attributes influence employability and how this relationship is moderated by individuals' participation in an entrepreneurship education course in HEIs.

### **5.5.1 Employability, Employability skills and Entrepreneurship Education**

In relation to the first hypothesis, the results show a significant and a positive relationship between employability skills and employability. The results are strongly consistent with other researchers in the field and particularly Van der Heijden, Boon, Van der Klink and Meijs (2009a) and Saterfield and McLarty (1995), who view employability from the individual perspective to consist of skills that are needed for success in the labour market. In relation to the second hypothesis, the results indicate that entrepreneurship education positively moderates the relationship between employability skills and employability.

This indicates that participation in entrepreneurship education enhances graduates' employability and satisfaction with their employability skills. The results further indicate that of the employability skills, enterprise and initiative are more likely to be acquired by graduates who have studied entrepreneurship education.

The findings add to the current literature on the impact of entrepreneurship education on employability, a field that needs to be researched further (Zheng and Liu, 2011; Knight and Yorke, 2003). The findings extend empirical studies by EU (2008) and Gorman et al. (1997), which indicate that entrepreneurship education plays a significant role in developing entrepreneurship values and skills. The findings also provide a link on the impact of entrepreneurship education on employability skills, since most studies assess the impact of entrepreneurship education on entrepreneurial outcomes, intentions and motivation (Matlay, 2008; Kolvereid and Moen, 1997; Oosterbeek et al. 2010). Further research is however needed to establish the content of entrepreneurship education as well as the teaching and assessment techniques that enhance the development of employability skills.

From the practical point of view, the findings show that participation in entrepreneurship education significantly influences satisfaction with employability skills and employability

prospects and hence the need to introduce the course for all within the group of higher education students (Hynes, 1996; Gerba, 2012; Matlay, 2005).

### **5.5.2 Employability and Socio-demographic factors**

In relation to the third hypothesis, the results do not support the moderating role of gender in the relationship between employability skills and employability. However, they indicate that females attach more importance than their male counterparts to the role of employability skills, particularly personal qualities, initiative or enterprise and attitude, in employability. The findings are supported by existing literature, for instance Kong (2011) established females to have a greater realization of the importance of employability skills than their male counterparts. A study by Kazilan, Hamzah and Bakar (2009) has similar findings, indicating that females have a higher level of employability skills than their male counterparts. However, the literature does not provide supporting evidence for these gender differences, calling for further research in this area. Finally, this study does not provide evidence to support hypotheses relating to the influence of socio-demographic factors and particularly parents' level of education and occupation on the relationship between employability skills and employability, calling also for further research in that area.

### **5.5.3 Employability, Employability skills and work experience**

The present study also finds that work experience negatively and significantly influences employability skills and the employability of graduates, except for employed graduates. The findings negate the fact that work experience fosters new graduates' employability and the development of employability skills, which is supported by (Snape, 1998). However, a study by Dania, Bakar and Mohamed, (2014) establishes that there is no correlation between work experience and students' employability skills. Additionally a study by Fulgence (2015a) establishes from the employers' point of view that work experience is not an important aspect in relation to the employability of new graduates, but the most important aspects in order of preference are core skills, CV presentation and behavioural qualities. Another study by Omar et al. (2012) establishes that industrial training does not necessarily help students to acquire soft skills, although it improves their technical skills.

Tran (2012) is also of the view that the nature of experience matters since informal kinds of experience do not enhance employability or employability skills. Additionally, the duration of

fieldwork and how students are involved in it matters, since some employers do not devote quality time to training students who will not stay long in their company (Tran, 2012). This can be the reason as to why work experience does not enhance employability and the development of employability skills among graduates as established in this study. Regarding work tenure, employability and the related skills, a study by Juhdi et al. (2010) found that employees with less than 2 years and more than 10 years tenure had significantly higher external employability than those with 3 to 5 years. Though the study did not explain the rationale behind these results, it can be possible that work duration and or tenure influences less employability of new graduates demanding for further research in this area. The study findings however agree with Juhdi et al. (2010) where employees with less than 2 years of tenure possess higher external employability.

On the other hand, studies by Overton, Kelly, McAlister, Jones and MacVicar (2009) and Martin et al. (2011) show that experiential learning opportunities build students' confidence in their capabilities and professional practice, both of which are associated with employability (Brown et al. 2003). Studies by Mason et al. (2009) and Paisey and Paisey (2010) also indicate that experience gained through work placements successfully develops a range of transferable skills. Although the findings of this study contradict the role of work experience in enhancing employability skills, the study is of the view that work experience has other impacts on students and new graduates besides enhancing the development of employability skills and subsequent employability. Juhdi et al. (2010) share similar views and according to McMahon (2004) through work experience students enhance their professional development and in particular network capabilities for future jobs, experiences of different cultures and lifestyles, improvement of communication capabilities, tools to excel academically, growth in confidence, and documentation skills.

Since this study did not establish the kind and duration of work experience, this opens up avenues for further research in this area. This will shed light on the role of work experience and its duration in enhancing employability skills and the employability of new graduates. There is also a need to review existing work placement activities to assess if they facilitate the development of employability skills and enhance employability.

## **5.6 Conclusion**

The study seeks to extend previous research on the relationship between employability skills and the employability of new graduates and how these skills can be enhanced through entrepreneurship education. Besides showing the positive and significant moderating effect of entrepreneurship education on the relationship between employability skills and employability, the results also indicate how employability is affected by socio-demographic factors and work experience, taking into account the differences in graduates' employment status. While parents' occupation and particularly civil parents positively affects the employability of unemployed graduates, work experience seems to have a significant negative effect on the employability of unemployed graduates, which does not appear to be significant for employed graduates. This indicates that even if unemployed graduates acquire work experience, this will not enhance their employability skills and employability. A different programme might be needed to enhance the development of unemployed graduates' skills. The findings may not be that conclusive, which calls for further research to establish this relationship.

The analysis confirms that personal qualities and attitude are specific employability skills that significantly influence the employability of new graduates. Further research on additional employability skills can add to the current understanding on how and under what conditions these can be nurtured in students in the course of their studies at different levels of education. This will not only enhance employability, but also facilitate the smooth transition of graduates into the labour market, a research gap that has been well established (Kivinen and Ahola, 1999; Kivinen and Silvennoinen, 2002; Morley, 2001; Shivpuri and Kim, 2004).

To conclude this research, therefore, first the findings shed light on how the employability of new graduates can be enhanced through their participation in an entrepreneurship education course, which significantly enhances their skills and attributes. This will counteract the view that industry is not finding employable people, a view shared by Datta et al. (2007), Alias (2007) and Karadisi (2012). Plastrik, Seltzer and Taylor (2003) also argue that if nothing is done to improve educational performance, the skills gap between what employers need and what graduates supply to the labour market will continue to grow. Second, the study findings show how the mismatch between the supply of employable labour and the demand for it can be overcome, which McKinsey Quarterly (2005) also found. The findings also propose further research to bridge the gap between HEIs' output and the demands of the labour market



and in particular how other measures besides entrepreneurship education can enhance the employability and employability skills of unemployed graduates. The findings however provide some conclusions and form the basis for further research in the area of entrepreneurship education, employability skills and the employability of graduates.

## **Chapter 6**

### **Using System Dynamics to Model and Analyze Employability Skills Development Programmes in Higher Education Institutions**

#### **6.1 Introduction**

Enhancing graduates' employability skills is one of the major roles of HEIs in collaboration with other stakeholders. The skills are of importance as they enable graduates to remain sustainably employable in the world of work (Watts, 2006). Research however shows that there is a gap between the skills acquired at the university with the skills demanded by employers (Cranmer, 2006; Davies, 2000; Finn, 2000; Lindsay, 2002). For instance, while skills such as communication skills, learning to learn and teamwork are mostly demanded by employers (Little, 2003; Wye and Liew, 2005; Archer and Davison, 2008) they are also the most lacking in new graduates (CBI, 2012; Ramlee, 2002; Carnevale, Gainer and Meltzer, 1991; Weligamage and Siengthai, 2003). Additionally and according to Brown, Green, Lauder and Sakamoto (2001) and Datta, Pellissery and Bino (2007), facilitating the development of employability skills to enhance graduates' employability has become an important issue for HEIs following increased enrolment, changes in labour market requirements and changing expectations of HEIs stakeholders.

In this context, besides focusing on developing academic knowledge, HEIs might also need to enhance students' employability skills through engagement in employability skills development program (ESDPs) (Knight and Yorke, 2003). Brown (2006) defines ESDPs as ones which provide individuals with work-related competencies, knowledge and skills, as well as developing attitudes that support participants' future development and employability prospects. The skills may comprise core skills like communication and numeracy skills, personal qualities, such as confidence and willingness to learn, and process skills such as technology usage (Yorke and Knight, 2004).

Several employability programmes have been in place to enhance graduates' employability skills (Artes, Forbes and Ripmeester, 2011; Tan and French-Arnold, 2012; Rahman et al. 2012). The programmes relate to processes occurring both within and outside the HEIs curricula (see Cranmer, 2006; Hager and Holland, 2006; Harvey, 2002; Knight and Yorke, 2004; Lorraine and Sewell, 2007). Mainstreaming of employability skills in the curriculum

(Yorke and Knight, 2004), employers' engagement in curriculum design (Weligamage, 2006; Frye, Ketteridge and Marshall, 2009), career guidance for students (Bridgstock, 2009) and the introduction of entrepreneurship education courses (Katz, 2003; Hynes, 1996) fall within the internal processes. The external processes involve work-related learning activities and experiential learning opportunities, such as internships, part-time employment, field trips, employers' involvement in teaching and assessment (Callanan and Benzing, 2004; Gault, Redington and Schlager, 2000; Gabris and Mitchell, 1989) and general activities such as academic clubs, student government and learning a foreign language (Lewis, 2004).

The programmes have had a positive effect on developing skills and competencies (Shukran, Wok, Majid and Noor, 2004; Little and Harvey, 2006; Lewis, 2004). For instance, within the education system, a study by Fulgence (in press) establishes that graduates who have studied entrepreneurship education as a subject demonstrate a higher level of specific employability skills than their counterparts. In relation to external processes, another study by Fulgence (in press) provides empirical evidence of the effectiveness of activities such as career guidance, career talks, participating in competitions, watching inspirational speakers online and professional clubs in promoting certain attributes, as graduates engaging in these activities have a higher level of employability skills and so are more likely to be employable. As well, students involvement in work-based learning enable them to develop employability and the skills necessary to succeed in the job market (Little and Harvey, 2006).

The development of employability skills is also influenced by the frequency of individuals' engagement in such programme activities and the number of activities engaged (Eccles and Barber, 1999). Besides the positive impact of ESDPs on employability skills development, studies on measures of participation in different ESDP activities are not informative enough (Lau, Hsu, Acosta and Hsu, 2013). Additionally, and as Lowden et al. (2011) argue some universities that implement these ESDP activities lack evaluative evidence to show the long-term impact of ESDP outcomes. Astin (1999) proposed that more empirical studies be carried out to examine the influences of ESDP on student employability, taking into account the amount of time and energy students devote to each activity.

This study extends these findings and specifically uses system dynamics modeling (Coyle, 1996) as a theoretical tool to model and study ESDP activities at HEIs where such models are limited. The study takes into account the number of activities and time required to

develop employability skills and competencies. For instance, several models have been developed and applied successfully in HEIs, such as those by Sterman (2000), Larson and Gomez (2012) and Ghaffarzadegan, Hawley and Desai (2013). However, the studies did not model the development of employability skills and how such a model could be used to explain the enrolment and departure of HEI graduates to become either employed or self-employed. Thus, the study focuses on students' duration in HEIs in relation to their engagement in ESDP activities. Building on the ESDP activities identified, the model shows the number of activities and the time needed to realize the required level of employability skills.

To get an overview of graduates' employability skills, the literature was reviewed concerning how HEIs can develop graduates' employability skills. This was supported by interviews with Tanzanian employers that recruit graduates from all fields to explore the challenges they face working with recent graduates and what they think could be done by HEIs to enhance the development of employability skills. The findings from employers reveal that graduates' challenges can be addressed by their participation in ESDPs in HEIs if the activities are well structured. Furthermore, the model simulation results show that it takes 25 quarters (6 years and 3 months) for an individual to acquire the required level of employability skills competencies. And to maintain them, a minimum of six ESDP activities is mandatory, not only during individuals' time at HEIs but also during their career and throughout their lives. As per the simulation results, application of the model can reduce the number of unemployable graduates and increases the number of employable graduates significantly. Engagement in ESDP activities also increases employability skills competencies among graduates.

Theoretically, the study adds to the current literature as regards the influence of the ESDP in enhancing employability skills views also shared by Blasko et al. (2002) and Karamesini (2008). The study also has practical implications as it offers some guidance to HEIs in developing ESDP activities that will last. Since an emphasize has been given on the feedback loops and the stock–flow diagrams, the model results and the related behaviour can be communicated to policy makers (Richardson, forthcoming; Ghaffarzadegan et al. 2011).

The rest of the paper is organized as follows. The next section highlights the study context. The literature on the concept of employability and ESDP activities is discussed in section three. Section four presents the study methodology taking into account employers' views on how HEIs can develop employability skills. Section five presents the simulation results. The

results are further discussed and policy recommendations for refining the structure of the system are provided in section six.

## **6.2 The context**

According to URT (1999), all study courses aimed at awarding advanced diploma, bachelor degree, postgraduate or any higher level degree are grouped under a higher or tertiary education category. Building on this definition, the Tanzania tertiary education comprised of a) universities and university colleges offering bachelor degrees in almost all fields of study and b) non-university institutions (institutes and colleges), mainly offering a three-year advanced diploma in several professional fields such as business, social sciences and engineering. Following mass enrolment in Tanzania HEIs (TCU, 2012) also experienced worldwide (Tan and French-Arnold, 2012; Rovira, Canals and Hoz, 2010; Green and Henseke, 2014), most of the former non-university institutions were transformed into universities and university colleges. This study focuses on the universities and university colleges which have degree programmes lasting 3 years for arts and social sciences and 4 years and above for hard sciences like engineering and medicine.

A comparison of past and recent enrolment in all Tanzanian HEIs indicates an increase in students' enrolment. While there were less than 5000 students enrolled in 1990s, the number has increased to 31,674 in 2003/2004 and 48,690 (53.7 percent) in 2010/2011 (TCU, 2009; 2012). On average therefore, over the past 20 years (1990 to 2010/11), enrolment in Tanzania HEIs has increased by eight folds, a remarkable increase compared to other universities in the world.

The reasons for the increased enrollment include, among others, increased access to Higher Education Student Loans Board (HELSB) funds, the demand for higher education because people already in the labour market want higher education to enhance their market competitiveness (Osemengbe and Uddin, 2013) and the increase in the number of established HEIs (TCU, 2012). For example, the graduate enrolment ratio in 2004 was one percent for the University of Dar es Salaam (the oldest university), indicating that only 30 percent of those who applied for admission were admitted during the year, leaving some qualified candidates with no chance of obtaining a university degree. Additionally, while there was one public university in Tanzania in 1961, the number grew to 3 public universities in 1990, to 30 (11 public and 19

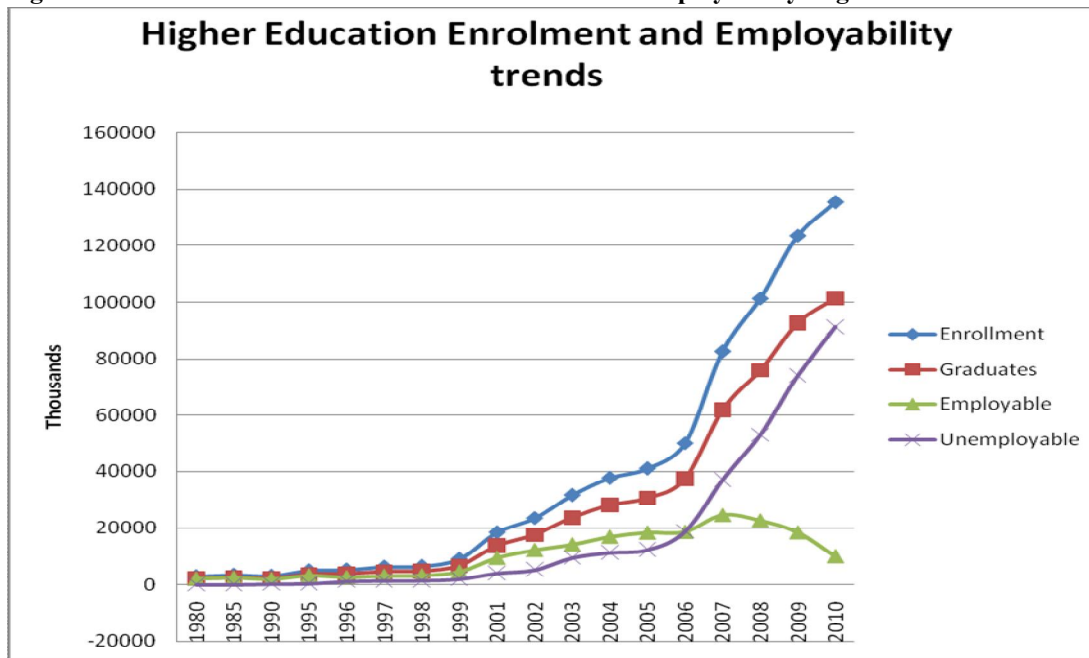
private) in 2006 and to 40 (11 public and 29 private) universities and university colleges in 2011, with most colleges acquiring university status in 2000 and onwards (TCU, 2012). Although the number of private universities exceeds that of public universities, enrolment in public universities is above that of private universities by 54 percent. Increased enrolment has gone hand-in-hand with a remarkable number of graduates released into the labour market. At an average of 25 percent graduation rate (Calcagno, Crosta, Bailey and Jenkins, 2007), the universities release over 30,000 graduates to the labour market per year.

In the past, the public sector used to be the main employer of graduates but that changed following new regulations aimed at reducing government expenditure (URT, 2011). Although the contribution of the private sector and industry to job creation is remarkable (Sutton and Olomi, 2012), employers are of the view that graduates do not possess what it takes to be employed (Peddle, 2000) and that the type of training offered in most Tanzanian HEIs produces graduates for whom there is no demand (Karadisi, 2012). This is supported by study findings worldwide, revealing a skills gap between the demands of employers and the level of educational preparation of graduates (Andrews and Wooten, 2005; Askov and Gordon, 1999; Atkins, 1999; Evers et al. 1998; Kivinen and Ahola, 1999; Kivinen and Silvennoinen, 2002; Morley, 2001; Shivpuri and Kim, 2004).

Figure 6.1 provides a cumulative summary of enrolment in Tanzanian universities and university colleges reflecting the above statistics over time. The figure describes two phases. Phase 1 (from 1980 to the late 1990s) is characterized by the high demand for graduates in the labour market, few HEIs and low enrolment in these institutions (Mkude, Cooksey and Level, 2003). In this regard, the difference between the number of students enrolled in HEIs, the number of graduates and the number of employable and unemployable graduates is minimal and unremarkable. Employable graduates in this context are those who possess the knowledge, skills, attitudes, behaviours and competencies demanded by the labour market (Hager and Holland, 2006). In Phase II (from 1999 to 2010) there is a slight though remarkable change between the number enrolled, the number of graduates and employability trends. In this regard, the differences in these aspects are more widely spread than in phase I, especially from 2006 to date. To summarize phase II, there has been a growing trend in enrolment in Tanzanian HEIs to date as earlier explained (Mkude, Cooksey and Level, 2003; TCU, 2009; 2012). On average, the number has been doubling after every 2 years. While the normal recruitment ratio (the ratio of

obtaining one good candidate from the group of graduates) is 1:3, the ratio now ranges between 1:8 to 1:10 and by 2040, 20-25 percent of HEIs graduates will be not employable (TCU, 2012). To substantiate this further, while it took 20 years for the number of unemployable graduates to reach 2000 from 1980 to late 1999 it took only 2 years for that number to double from 1999 - 2001 which is largely attributed to the increased number of enrolled students which positively affected the number of graduates.

**Figure 6.1. Trends in Tanzanian HEI enrolment and the employability of graduates**



**Source:** TCU, 2012 facts and figures

Weligamage and Siengthai, 2003 is of the view that the high rate of unemployed and underemployed university graduates points to a mismatch between the supply of and demand for graduates, reflecting a supply-driven education system with little relevance to labour market conditions. On the other hand, it is also possible that the quantity of enrolment in HEIs went along with a seemingly growing loss of quality in the teaching process. For instance, a study by Kyaruzi (2012) assessing the effects of increased enrolment on the provision of quality teacher education reveals that the majority of instructors (83.3 percent) do not conduct seminars in most of the courses they facilitate due to high student enrolment. In this regard, increased enrolment impacts

negatively the quality of graduate outputs as it hinders among other things the development of students' employability skills, one being self-confidence.

The concept of the student-teacher ratio also comes into play. At the University of Dar es Salaam, for example, the increase in the number of students enrolled from 10218 in 2003/04 to 14651 (43%) in 2007/08 has gone hand-in-hand with an increase in the number of academic staff recruited from 575 in 2003/04 to 823 (43%) in 2007/08, maintaining a ratio of 1:18. However, the ratio depends on context related factors (such as study discipline, country's educational policies, nature of institution), operational factors (nature of the course, level, class size, individual preparations) and individual factors (academic ranking, gender, qualifications and so forth) (Yuker, 1984). Accordingly there is evidence that the time devoted to initial preparations of specific courses is influenced by the size of the class, the type of the course, and the different number of courses. As a consequence the workload of course instructors in different departments is affected differently, irrespective of whether the teacher-student ratio is within the recommended range (Kyaruzi, 2012). When the instructors' workload is large, the quality of university graduates is affected, which can be the case in the given context.

In Tanzania, although entrepreneurship education courses in HEIs are seen as a solution to the problem of graduate employability, other employability development activities are uncoordinated (Kilasi, 2011; Nkirina, 2010). Entrepreneurship courses have been introduced in some business schools (only 10 percent of all business schools Tanzanian HEIs) (Sabokwigina, 2008), in schools of education (32.5% of all schools of education) (Fulgence, 2015b) and as an add-on to other disciplines (Kilasi, 2011). A study by Sabokwigina (2008) further reveals that only 2 percent of Tanzanian HEIs have entrepreneurship centers whose objective is to coordinate entrepreneurship initiatives and to ensure that universities and colleges have schemes that guide employability development activities. As well, other initiatives in this direction in non-business schools are at the initial stage (Kilasi, 2011).

Studies further show that employability and the related skills are imparted to students in the course of their studies within the whole education system from the lower levels (Harvey, 2001; Lorraine and Sewell, 2007). This however depends on teachers' ability to impart the skills during the teaching and learning process (Precision, 2007). A study by Mason and Terrence (1999) also shows that participation in an entrepreneurship course by professional teachers has a positive impact on their ability to develop entrepreneurship and employability skills in students.



In this context, teachers who have studied entrepreneurship as a course can mainstream employability skills in their subjects when executing their teaching roles and thus facilitate the development of employability skills in students.

In this regard and in the Tanzanian context, professional teachers could have imparted the required employability skills to students at lower levels if they had taken an entrepreneurship course as a subject at the tertiary level. According to TCU facts and figures (2012), 135,362 students were enrolled in Tanzanian HEIs in 2011/2012, 40 percent of whom were enrolled in education programmes. Studies by Fulgence (2015b) established that only 31.6 percent of undergraduates studying education in Tanzania have access to an entrepreneurship education course every year. Additionally, most of the courses were established in 2008 and are yet to bring about the intended impact in terms of orienting teachers to enhancing entrepreneurship and employability skills in their teaching. Therefore, other ways need to be found through which graduates can acquire employability skills and one possible way is their engagement in ESDP activities.

### **6.3 A review of the concept of Employability and the role of HEIs in fostering employability skills**

A review on whether employability skills can be fostered and acquired in HEIs has been discussed in the literature (Shafie and Nayan, 2010; Hager et al. 2002; Atlay, 2006). Most studies maintain that to enable graduates to keep pace with global competition and labour market demands employability skills and traits need to be imparted during tertiary education. A study by Bakar and Hanafi (2007) however is of the view that since the skills are incorporated in the curriculum, students should learn and develop them on their own and as such they should not be taught. Additionally, where employability skills are taught, students often do not know how to use the types of employability skills they are learning about.

As well, the concept of graduate skills in terms of definition, methods used to develop them and the related outcomes is perceived differently among academicians and HEIs (Green, Hammer and Star, 2009; Barrie, 2006). Barrie (2004) shares this view, adding that the development of graduate attributes is probably the outcome of earlier educational experiences. This study is of the view that employability skills can be developed at the tertiary level and as Robinson (2000) argues, employability skills can be taught within the school setting and in the

work environment. Thus, there is a need for HEIs to explicitly set goals and objectives aimed at developing employability skills given their demand in the labour market.

According to Harvey and Morey (2002), developing employability skills is about how individuals engage with the opportunities, and reflect on and articulate their skills and experiences. There is also the view that the development of employability skills begins at home and is the result of effective parenting (Poole and Zahn, 1993). For example, a study by Hills et al. (2009) establishes that, when other factors are taken into account, mothers' education plays a significant role in developing children's mental and intellectual abilities. Zinser (2003) however argues that parents cannot be solely relied on to develop such skills but the teaching of employability skills should also form part of the school curriculum. Therefore, career and employability skills development should be part of the undergraduate curriculum and taught in schools. Indeed, Washer (2007) argues that graduates should leave higher education better than when they entered it.

Whilst there appears to be a consensus amongst key stakeholders on the importance of addressing employability within HEIs (Lorraine and Sewell, 2007; Harvey, 2002), the question remains as to whether to promote these skills and attributes within or across disciplines. Since employability skills are best developed in the context of a discipline (Barrie and Jones, 1999, pg. 198) and they differ among professions and contexts, Atlay and Harris (2000) and Hager, Holland and Vecket, (2002) proposed that a profile of generic skills should be drawn up, which could be contextualised to a particular profession or discipline. Robinson and Garton (2008, pg. 102) proposed that problem-solving and decision-making skills should be given attention in the curricula.

Additionally, Oates (2001) argues that if graduate attributes are to be applied to new situations and tasks, it depends first on pedagogical practices, such as the inclusion of a wide range of learning contexts, problem-based learning, self-directed learning and self-reflection. Second, work placements (Hager and Holland, 2006; Harvey, 2002) are needed as well as ESDP including extra-curricular activities, where students engage in real practice (Brown, 2006; Bridgstock, 2009). Another route more suited to the development of such workplace attributes to degree level is via a technical qualification, since it involves prolonged immersion in the social world of the workplace, hence developing them through a direct method (Winch, 2006).

As modified from Holland (2006), DEST (2006) and Boud and Solomon (2003), Table 6.1 lists the kinds of learning settings and related strategies that are likely to assist students in developing employability skills and attributes when studying at HEIs. The strategies categorize the role of a student as a practitioner, critical thinker and independent learner and the related settings both at the HEI and workplace.

Hager et al. (2002, pg. 289) further states that the deliberate design of learning and teaching strategies to enhance generic attributes need to be as significant in university life as is the deliberate design of the discipline or field-based studies, which are the core of the graduate's technical or professional practice.

**Table 6.1. Settings Conducive to the Development of graduates' attributes at HEIs**

<b>Role</b>	<b>Educational Setting</b>	<b>Workplace setting</b>
Student practitioner	Teamwork / Group discussions	Work placements / Practicum
Critical thinker	Practical work	Internships
Independent learner	Case studies	Volunteering
	Simulations and Role play	Interviewing practitioners
	Authentic and integrated tasks	
	Problem-solving questions	
	Individual presentations	
	Career guidance	

**Source:** Modified from Holland (2006) and DEST (2006)

Additionally, Scanlon (2006) argues that if students are to acquire graduate attributes, it is not enough to identify and incorporate these attributes into curriculum documents, but they must also be integral to the assessment. Studies by Saunders and Zuzel (2010) and Cooper (2006) for example found that ESDP activities receive little attention from students since they are not mandatory and so time needs to be set aside to convince students of the potential advantages of participating in these personal development programmes.

Since the development of particular graduate skills is incremental and spiral, each building on the other through stimulus, practice and reflection (Holland, 2006), it is unlikely that they can be meaningfully assessed within a short time (Hinchliffe, 2006). Barrie, Hughes and Smith (2009) suggests alternative forms of longitudinal assessment that extend beyond or across traditional course boundaries in order to have a major and integrated impact. Additionally, and as

stated by Green et al. (2009, pg. 7), these alternative forms of assessment should be authentic, provide for students engagement and self reflection.

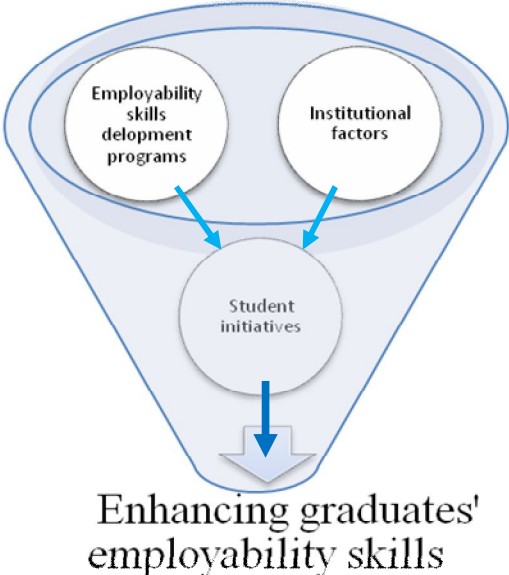
ACCI / BCA (2002) and Precision (2007, pg. 52) provides a summary of how learning and the assessment of employability skills can be done that include:

- a) Workplace-based approaches where learners work on a wide variety of tasks in the real world context,
- b) Classroom-based approaches where learners have access to practical case studies, simulations and activities with industry representatives to address the lack of work-based approaches and
- c) Flexible or distance-learning approaches where learners get the opportunity to combine the two approaches. Such approaches include forums with industry experts and other learners, both live and online and through interactive media.

Indeed, and to facilitate the skills transfer process, strong emphasis need to be given to the practical application of the acquired skills in a variety of contexts, a view that is supported by both graduates and employers (see Atkins, 1999; Lees, 2002; Raybould and Sheedy, 2005). Additionally, and according to Wickramasinghe and Perera (2010) a mixture of learning and development approaches would be beneficial, instead of relying on a single strategy for the enhancement of employability skills.

Though several activities come under the umbrella of ESDP activities, this study is not limited to the activities that significantly impact the development of employability skills (Lewis, 2004; Fulgence in press), but how graduates' skills and competencies can be enhanced by their engagement in all forms of ESDP activities, whether within or outside the university curricula. The activities can be related to the discipline of study as advocated by Lorraine and Sewell (2007) or can be stand-alone modules running within or in parallel to the curriculum (Panagiotakopoulos, 2012). Figure 6.2 summarizes the literature on the factors that enhance the development of employability skills in the HEI environment. The factors are discussed in Table 6.2 and form the basis for categorizing the interview themes as further explained under the methodology section.

**Figure 6.2 Developing employability skills competencies**



**Table 6.2 Factors that enhance the development of employability skills among graduates**

Literature	Categorization of the factors	Scope
Human capital theory and Employability skills development models (Law and Watts, 1977; Harvey, 2002; Yorke and Knight, 2004; Lorraine and Sewell, 2007; Bakar and Hanafi, 2007)	Employability skills and Career development programmes	<p>HEIs impart employability skills to students by embedding them in the curriculum and enabling students to engage in work-based learning (Yorke and Knight 2004, Cranmer, 2006; Macfarlane-Dick and Roy, 2006). According to Little and Harvey (2006) work-based learning enables students to possess skills that are essential for success at work. Such activities include work placements, writing case studies, projects and consultancy assignments (Cranmer, 2006). Through the programmes students learn how to plan for their career goals and how to attain them (Lorraine and Sewell, 2007; Foster, 2006). Additionally, the programmes expose students to the nature of skills demanded by employers (Bridgstock, 2009) such as interviewing and presentation skills. Furthermore through the programmes students are made aware of the occupations available for them (after graduation) both within and outside their fields of specialization (Elias and Purcell, 2004). This enable graduates to make an informed decision about their future careers and make a smooth transition to the world of work.</p> <p>Other means to enhance employability skills among graduates include the use of appropriate teaching strategies (DEST, 2006). This however depends on the facilitators' ability to creatively use the appropriate strategies to facilitate the development of the skills. Watt (2006) suggests that the traditional instructional methods are unlikely to be as successful as personalized and engaging ones. In this regard activities such as role-plays, self evaluation of the skills, problem-based group work, work-integrated learning and peer reviews (for example of resumes) are personalized and more engaging and as such facilitate the development of employability skills among students.</p>
	Student initiatives	<p>Although different stakeholders are involved in enhancing the development of employability skills in graduates, the role of students also matters. Students' initiatives include among others engaging in ESDP activities like career guidance services and extracurricular activities such as sports, clubs and associations (Lorraine and Sewell, 2007). According to Dania et al. (2014, pg. 121) such activities can help students develop employability skills such as leadership, critical thinking, and teamwork abilities. Accordingly, a study by CBI (2009) assessing who is responsible for the development of students' employability skills found out that 44 percent of students felt it was their responsibility, a third (32 percent) felt it was the university's and 16 percent felt that it is the role of the schools or colleges they studied at before joining the university.</p>
Systems theory	Institutional factors These include the curriculum, quality instructors and academic programmes that facilitate the processing of the input to produce quality output.	<p>According to Laszlo and Krippner (1998) a system may be described as a complex interaction of components with the relationships among them that permit the identification of a boundary-maintaining entity or process. According to Banathy (1992, pgs 15-17) HEIs as a system comprises the environment model (from where the system's input (students) are obtained and output (graduates) are released), the structure model (system's goals and objectives, and main functions, including the faculty and other components that carry out the functions), and the process model (study programmes, teaching methods and evaluation). According to Precision (2007), the process of developing employability skills at the HEIs level falls within the intended curriculum (in terms of goals, teaching methods, assessment techniques and the related learning outcomes) and the enacted curriculum (what students learn and how the content is delivered and this is reflected on the assignments given, text books read and the learning environment). Knight and Yorke (2004, pg. 34) further argue that good learning, teaching, assessment and curriculum practices foster achievements valued in the labour market including employability skills.</p>

## **6.4 Method**

The study works with the mixed method approach (Creswell, 2009), because of its relevance to the system dynamic technique. The study was done sequentially and has two phases; the qualitative phase and the model formulation and simulation stages in phase two.

### **6.4.1 Phase 1: Qualitative approach**

In this phase, the study relied on data obtained from the 22 firms interviewed in the Tanzanian context (Fulgence, 2015a). Given the nature of the study's objective, qualitative data provide greater insights that cannot be gained from hard data (Smirchich, 1983; Orum et al. 1991). The method therefore allowed the researcher to generate rich data by focusing more narrowly on defined groups of recruiters, making it easier to reveal the complexity of the study themes (Jones, 2001). The interviews therefore aimed first to explore the challenges employers encounter when working with fresh graduates. This was important to find out whether by developing employability skills in students the challenges employers face working with graduates can be addressed. The study also aimed to get employers' views on what they think can be done at the institutional level in terms of university programmes and activities to foster the development of employability skills in graduates.

To ensure diversity of the respondents (Creswell, 2009), the selection of the participants was based on the nature of business activities. The study also selected firms that employ new graduates and from different disciplines. In terms of sector categorization, the firms comprised oil trading companies (18.2 percent), auditing firms (22.7 percent), recruitment agencies (13.6 percent), banking and financial institutions (13.6 percent), manufacturing and mining both (9.1 percent) and telecommunications, schools and government recruitment secretariat, each (4.5 percent), thus a broad field of companies and sectors to reflect the typical Tanzanian labour market for graduates.

Using MAXQDA (software for analyzing qualitative data), the interview data were analyzed and the findings coded systematically to establish thematic codes. The reviewed literature on how employability skills can be enhanced within HEIs forms the basis for coding the transcribed interviews. About the challenges employers encounter when working with new graduates, six thematic codes were established. Regarding the role of HEIs in enhancing employability skills, nine thematic codes were established and these were grouped into three

themes as supported by the literature in Table 6.2. Appendix C summarizes categorization of the emerging themes supported by the literature. To allow for the voices of participants to prevail, the findings are illustrated with interview quotes, as recommended by Sandelowski (1998). The interview findings are first analyzed and thereafter taken into consideration when developing the ESDP model.

## **6.4.2 Interview Results**

### **6.4.2.1. Challenges employers face working with graduates**

The themes that emerged as the challenges employers encounter when working with fresh graduates supported by the literature are appended in appendix C (part D). From the findings, the first theme was the gap between academic and work performance (54.5 percent). Employers are of the view that graduates perform very well academically, but their academic performance does not correlate with their work performance. This shows that graduates focus more on academic performance measures with little emphasis on practical aspects, as the quotes below demonstrate:

*“Graduates from some universities know a lot and have very good GPAs, but they cannot think outside the box, I mean in terms of competencies that is not the case. Some have had very good exposure, despite having lower GPAs...” (13-14\_Auditing firms).*

Another interviewee narrates:

*“During our times, when you are a first-class graduate, it really was first class and this could be easily translated into the way a person thinks, which is demonstrated in group discussion and in the world of work, and how a person writes reports and so forth” (27\_Auditing firm)*

The study also shows that graduates lack transferable skills (45.5 percent) and communication skills (27.3 percent). As regards transferable skills, this indicates that graduates employed by the interviewed firms cannot transfer the theoretical knowledge learnt to new contexts. As Atkins (1999) points out, the transfer of learning and skills is more critical than gaining skills and knowledge. One illustrative quote of an HR personnel underline this problem:

*“About the content, students are taught to answer questions but not to understand what is learnt or how to transfer it to other contexts. Although you did not study banking, you can apply what you have learnt in banking or any other industry. We need people who are versatile, for example, I have worked in finance, in marketing and now in HR”*



*(8\_Banking Financial Institutions).*

As regards communication skills, employers commented that graduates lack a good command of English and in particular graduates cannot speak confidently. As one of the human resources personnel commented:

*“Communication skills for graduates are very important. We work with all kinds of people. Graduates cannot speak English at all. I do not understand having a graduate who cannot speak English when all university education is conducted in English. How did they manage the 3 years?” (14, 28\_Manufacturing)*

*“Some graduates perform very well in our test and in the related assessment activities. Some have very good GPA results, but they cannot get a job because they cannot communicate properly” (47\_Professional Firm)*

Other challenges include graduates' inability to write reports (18.2 percent). In this regard most of their reports have to be rewritten by their supervisors. According to Andrews and Higson (2008), communication skills through report writing are a key factor in shaping graduates' employability.

Recent graduates also have greater expectations of obtaining higher positions (22.7 percent) than former graduates. As one human resource manager commented:

*“Graduates have high expectations... I am glad that when I was at the university in my 3<sup>rd</sup> year, I was told by my professor that, (you are told that you would be managers!!).... It is not true, you are going there to be desk officers, you will get unsorted seats and we were expecting that, we knew that we could work hard to become managers. Recent graduates have very high expectations, they are not told this in their classes” (18\_Manufacturing). “Recent graduates want to become a one-day manager...” (27\_Oil and Trading).*

Thus students seem to be over-confident about what they have learnt and are able to do. But they are not told in the university that the learning process goes on when they enter their first job.

Summarizing the interview findings, most of the challenges fall in the broader category of employability skills. For instance, employers expect graduates to possess core skills, which include communication skills and attention to detail (Knight and Yorke, 2004; Tixier, 1996).

Communication skills refer to individuals' ability to communicate both orally and in written form (Datta et al. 2007; Andrew and Higson, 2008). Employers also expect graduates to have a positive attitude and transferable skills (Lorraine and Sewell, 2007; Andrews and Higson, 2008; Ha, Mustaphab, Malike, and Bunian, 2012). According to CBI (2012) having a positive attitude is a key factor that influences an individual's employability. It embraces attributes such as having the can-do approach, being ready to contribute and take part as well as being open to new ideas and being motivated to realize them. A positive attitude is revealed in individuals' ability to learn new things and to change depending on the circumstances, as well as their proactiveness and punctuality in terms of time and meeting deadlines (Barnard, Deyzel and Makhanya, 2011). Barnard et al. (2011) further argue that having a positive attitude makes individuals satisfied with their job and perform well in it. This is because it affects their inter-personal skills and how they relate to others, such as supervisors, colleagues and clients. In this study, graduate's higher expectations as elaborated fall under the positive attitude aspect.

#### **6.4.2.2. Employers' views on the role of HEIs in enhancing skills**

Appendix C (part E) provides a summary of the themes reflecting employers' views on what can be done by HEIs to develop the employability skills of graduates. The themes were developed from the interview data. In this regard, 9 themes were extracted and could be developed further. After categorizing the interview data, it was analyzed how often these categories were named by the study participants. The emerging themes are shown in percentages to reflect how often they were mentioned by the study participants. Thus the percentages do not add up to 100. Based on the reviewed literature and as shown in Appendix C (part E), the nine themes were further grouped into three major themes, institutional factors, ESDP activities and student initiatives.

The theme 'develop exposure of students' emerged first with 95.5 percent. Employers commented that this needs to be developed through:

- a) Internships and work placements – this introduces students to the world of work where graduates learn about employers' expectations. According to Precision (2007), the key tools for enhancing employability skills in graduates include involvement in practical orientation, cooperation with industry and internships.
- b) Reading different kinds of books and with more emphasize on motivational books. Although reading books facilitates the development of employability skills, a study by

Chan and Murphy (2010) established that the key skills cannot be developed or learned by reading books alone and so both reading and engaging in ESDP activities are important.

- c) Students need to be oriented to online tests especially the aptitude and personality tests. According to Tixier (1996) aptitude tests are used by employers during the recruitment process to assess candidates' areas of interest and are used by firms that need to measure specific skills and specializations. Fulgence (2015a) established similar findings in the Tanzanian context, where 77.3 percent of corporate recruiters use aptitude tests during new graduates' recruitment process.
- d) Students need to engage in professional clubs, exchange programmes and presentation fora. Through the programmes graduates get an opportunity to network with people with similar interests, get to know the employers in their fields of study and access opportunities available for work experience (Harris, 2001; Elias and Purcell, 2004; Tan and French-Arnold, 2012). According to Elias and Purcell (2004), graduates would find the initiatives more useful and beneficial if information about non-graduates occupations and other available labour market opportunities for them was provided.
- e) Students need to be exposed to how to write a CV and on top of this need to know the use of the internet and other social networks.
- f) Lastly, students need to be exposed to role models that show them what it takes to be successful in the world of work. One junior human resource officer commented:  
*“At my university, we had a different kind of ‘free session’ which dealt with how to write a CV, how to search the internet, how to appear in an interview and how to respond to questions, one could also read online materials and so forth... The sessions were provided for final-year students” (48\_Professional firm)*

The second category most referred to in the interviews with an 81.8 percent share was the need for career development programmes. In this context, students need to engage in activities that suit their personalities so that they can make informed decisions about their careers (Foster, 2006). In relation to this study, employers suggest that students need to be trained in developing plans and activities that change people's mindset. There is also a need for career clinics and career guidance programmes to help students choose a career. Such programmes should not only

start at the tertiary level but also at lower levels of education to give students information on different careers.

Another theme that emerged was the need for employers and HEIs to collaborate (59.1 percent). Employers thought that more practical training was needed to enable students to link theory and practice. Therefore, students need to take this training seriously, under the supervision of both the employer and HEI and it should be supplemented by students' submitted reports. Employers also explained the need to prolong the internship and/practical work of students to enable them merge theory and practice. Finally, HEIs should allow the practitioners to do some of the teaching at a minimal level. In this regard, universities need to establish the kind of courses that can be offered by the practitioners as well as the amount of time needed so that universities do not become like colleges and training centres of industry.

Enhancing students' presentation skills (50 percent) has been named as another important aspect. Students need to make presentations and lecturers should make sure that every student expresses him/herself in front of others / people or even to other classes. In this context, tutorials should be engaging and students should work in small groups. Although the role of presentation skills in enhancing employability has been recognized and even incorporated in the undergraduate curriculum (Fallows and Stevens, 2000; Pittenger, Miller and Mott, 2004), graduates comment that their engagement in verbal presentations whilst in higher education has been minimal (Andrews and Higson, 2008). Students need also to engage in role plays since all these activities build up their confidence. As one human resource director commented:

*“The seminars and presentations were very useful during our time. Apart from the technical and theoretical parts, HEIs need to introduce something to expose students... for example ways of creating confidence so that someone can talk about what he/she knows... During an interview, you can talk with a graduate but the way they talk you cannot tell... you are talking to a university graduate. They cannot express themselves. The seminars give students self-confidence....” (27\_Banking Financial Institution)*

Other initiatives named by the interviewees and categorized include

- *Curriculum mapping (54.5 percent)*. This means that there exists a need for HEIs to incorporate in the curriculum new developments in the industry (11 percent). Curriculum mapping involves analyzing the existing curriculum to identify where specific skills are addressed and where there are gaps, and the skills are further developed in specific

disciplines or across the entire programme (Sumsion and Goodfellow, 2004). The study supports Kruss (2002) on the need for transferable skills, knowledge and attitudes previously developed through work experience to form an integral part of HEIs' programmes and curricula. However and according to Bogotch and Shields (2014) this contradicts the prime role of HEIs of maintaining intellectual freedom, knowledge creation and dissemination. Hager and Holland (2006 pg. 149-168) further argues that there is no shared understanding amongst universities of the definition of employability skills as an outcome of higher education as a process and that all graduates, regardless of their discipline or field of study, need to acquire the skills within HEIs. To develop employability skills in graduates therefore, both the formal curriculum and activities outside the core curriculum complement each other in the process (Rahma et al. 2012; Tan and French-Arnold, 2012).

- *Improvements in teaching and learning pedagogy (10 percent)*. In this regard, students are given the opportunity to participate more in the learning process.
- *The need to develop graduates' interview skills (45.5 percent)*. This is important because most graduates do not know how to conduct themselves in an interview and how to respond to interview questions.
- *The need to improve the quality of academic teaching staff (40.9 percent)*. The need arose following increased enrolment in HEIs. The increased demand has not gone hand-in-hand with the increased number of competent academic staff who can handle the large number of students (Kyaruzi, 2012). As a result, some university facilitators are not qualified enough to facilitate university courses. Thus, there is a need to employ better trained professors and trainers for the graduates.
- Students need also to take initiative for their own learning to enhance their employability skills (9.1 percent). Although students appreciate the embedding of employability skills in the curriculum in relation to their employment prospects, they desire more opportunities to develop these skills in workplace settings where they practically engage and get industry exposure (Holland, 2006; DEST, 2006; Crebert, Bates, Bell, Patrick and Cragolini, 2004). Accordingly, Smith, Brooks, Lichtenberg, McIlveen, Torjul, and Tyler (2009) propose the need to embed career development learning in work-integrated

learning programmes to enhance employability skills in students while still in a learning environment.

To summarize, phase one provides preliminary support for employers' views on how employability skills can be enhanced by HEIs. The findings show that graduates' challenges can best be addressed within and outside HEIs' formal curriculum besides the critical aspects shortly discussed above. This is done through the curricula and pedagogy, engagement in ESDP activities and individual initiatives to engage in available opportunities. These findings are supported by literature exploring the role of HEIs in enhancing employability skills (Atkins, 1999; Billing, 2003; Evers et al. 1998; Andrews and Wooten, 2005).

Linking phase I (the qualitative phase) and phase II (the simulation technique) the ESDP activities are of interest in phase two. In this regard, ESDP model was developed and simulated using system dynamics technique and this is further discussed. A vensim software was used for simulation purposes (Vensim, 2010). To show the interaction between the institutional factors and the ESDP models (as reflected in Fig 6.5) in developing employability skills, causal loop diagrams for both were developed. According to Kim (1992) a causal loop diagram consists of variables and links that represent how different parts of a system are interrelated. It was important to develop the causal diagrams for the two models or systems because first, they use different environments in terms of supervision and interaction to develop employability skills and second, the approaches used to develop the skills to bring about the intended impact on graduates are different under each model or system (Holland, 2006; DEST, 2006).

#### **6.4.3 Phase II: Modeling and Simulation of ESDP using the System Dynamics technique**

The system dynamics technique was developed during the 1950s and has now become an advanced method for describing systems' basic structures through causal loop diagrams and simulation (Ford and Sterman, 1998). The technique enable one to analyze the structure and behaviour of a system with multiple interacting objects (SDM, 2010). In this regard, the system feedback structures are represented using causal loop and stock-flow diagrams. To start with, a causal loop diagram of a system is constructed. Causal loops explain the behaviour of a system by showing a collection of connected variables and the feedback loops created by the connections (Kim, 1992). Accordingly, a feedback loop is a system structure that causes the

output from one variable to influence the input to that variable. This is further discussed in relation to the study model.

Stock and flow diagrams are richer than causal loop diagrams and depict the structural understanding of a system, in particular, the causal structures that produce the observed behaviour. Stock-flow diagrams reveal information as regards the rates at which the system elements change (also termed as a flow) and the accumulation of system variables (also termed as a stock). In this study the flow includes among others enrolment and graduation rates and the stock includes the number of students enrolled and the number of graduates. Information obtained from the stock-flow diagram forms the basis for simulations. The results of the simulations are used to predict the future behaviour of a system. According to Forrester (1961), the simulation process enables for the testing of potential policy decision in a computer model prior to the application of the policy or policies in the real system.

While other researchers view systems dynamic as a qualitative or soft tool used to bring about change in the participants' mental models (Forrest, 2009), others view systems dynamic as a quantitative or hard system tool for studying complex system behaviour through modeling and simulation (Forrester 1973; Sterman 2000). Regardless of the system's structural level of complexity, effective application of the system dynamic needs both its qualitative and quantitative components (Luna-Reyes and Andersen, 2003). To describe the problem and its context, it is important to use qualitative data and this facilitates the formulation of the dynamic hypotheses. The simulation process falls within the quantitative data category.

In relation to the research problem and focusing on the quantitative component of the systems dynamics, the structure of ESDP involves many complex variables such as the number of ESDP opportunities in HEIs, the diversity of methods for teaching employability skills within subjects/disciplines, the nature of ESDP activities, the level of commitment to and engagement of students in employability development opportunities, the type of skills that need to be developed and the quality of the teaching staff and/or practitioners that supervise the activities. The ESDP also contains variables from different domains (operational, economic and social) and from different HEI stakeholders (employers, students, university administration and graduates). These variables affect one another in the system with numerous feedback loops that could cause non-linear behaviour of the system.

Since there exist many feedback loops in the structure of the ESDP system, it is important to use system dynamics approach since it enables for the analysis of the system structures, thus improve the systems behaviour as advocated by Forrester (1973). Systems dynamic approach has shown to be useful for modeling complex feedback systems with non-linear behaviour, such as environmental, social and economic systems (SDM, 2010) including feedback interactions between diverse components of the system as well as in HEIs as discussed earlier.

#### **6.4.3.1 Purpose of the ESDP Model**

The primary goal of the model is to examine the effect of ESDP activities in terms of number on graduates' competence level and how this will have an impact on the number of employed and unemployed graduates in the long run. Boyatzis (1982) as quoted in Ahmed (2009, pg. 299) defines competence as an underlying characteristic of an individual which is related to effective or superior performance in a job and can be motive, traits, values and cognitive or behavioural skills. The time horizon selected is from 1980 – 2010 and for future purposes 30 years ahead (2011 – 2040). The time sounds realistic as it takes into consideration the time it takes to develop and implement a programme until it brings about the intended impact, which in this study, is the increased number of employable graduates over time.

#### **6.4.3.2 Model boundary**

Table 6.3 summarizes the model variables which are further categorized into flow and stock for endogenous variables. Exogenous variables are factors beyond the study's control. Stock (S) is a variable which accumulates something in it and Flow (F) is the rate at which the stock changes. Since the ESDP model includes a broad range of variables, some variables needed to be excluded in order to have an accurate representation of the model. Most of the excluded variables fall under institutional factors, which cannot be controlled by students while at the university. However and to allow for the interaction between the ESDP model and institutional factors (as earlier discussed) a causal loop diagram for the seminar participation model was developed.



**Table 6.3 Model boundary chart for ESDP model**

<b>Endogenous</b>	<b>Exogenous</b>	<b>Excluded</b>
Graduates competence level (S)	Government policies on student enrolment	Formal academic curriculum
Fraction of employable and unemployable graduates (S)	Population	HEIs' infrastructure
Fraction of students able or qualify to go to University (S)	Potential graduates	Academic staff qualifications and experience
Employability ratio (F)	Job opportunities in labour market	ESDP methods in normal subjects/disciplines
Graduation rate (F)	Demand for higher education	Management and facilitation of HEI programmes (This is excluded since the study measures the impact of engagement in ESDP activities that are taken voluntarily by students at the university).
Number of graduates from HEIs (S)		Participation in subject seminars
Number of ESDP activities (S)		
Number of students per seminar (S)		

**Source:** Interview data (2012) and desk research

### 6.4.3.3 Causal loop diagrams

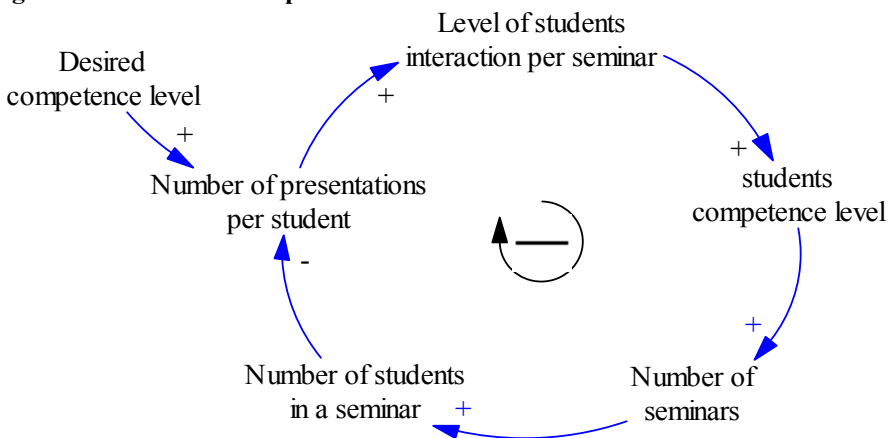
#### 6.4.3.3.1 Causal loop of seminar participation model

An iterative approach was used to develop a model of this sub-system. To start with, the key variables that could determine or change the behaviour of the system were identified, for instance, the number of students participating in a seminar, their level of interaction during seminar discussions, the number of presentations per student and the competence level developed by students participating in a seminar. At the same time, the feedback loop was established showing the interdependence between these variables and how they affect each other's behaviour over time. Figure 6.3 shows a preliminary causal loop diagram containing a feedback loop between the above variables.

As reflected in the figure, the link between students' competence level and the number of students is positive (meaning the greater the number of presentations, the greater is the level of students' interaction during seminar presentations and the more likely will students develop their competence level). The link between the number of students and number of presentations per student is negative (indicating that if the number of students in a class increases, individual presentations will be reduced). This will be the case if the amount of time devoted to the seminar remains constant besides increasing the number of students in a class.

To determine the structure of the feedback loop, the overall signs of the causal links (whether positive or negative) are multiplied and this determines the behaviour pattern of the system. For further details about the definition of positive and negative loops see Richardson (2006, pgs. 159, 163-164). Building on this explanation, the loop in Figure 6.3 contains four positive links and one negative link and hence the overall loop is negative. The presence of a positive feedback loop indicates an exponential growth behaviour, while a negative feedback loop presents a goal seeking behaviour (see Richardson *ibid.* pg. 164) which is the case in the study feedback loop. This indicates that the goal of the model is to attain the required competence level.

**Figure 6.3. A feedback loop in the Seminar model**



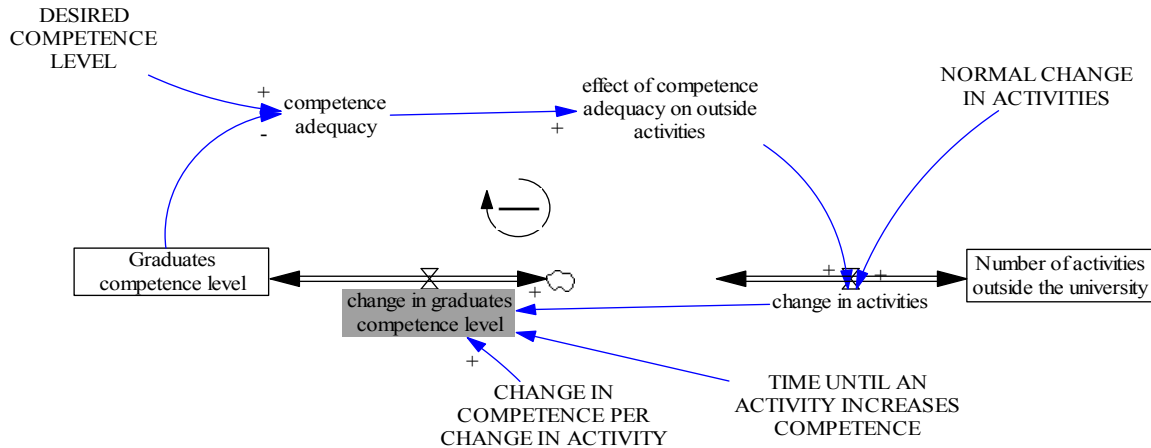
#### 6.4.3.3.2 Causal loop of ESDP activities model

Figure 6.4 shows the interaction of the selected variables, which are the number of ESDP activities in relation to graduates' competence level, and the amount of effort one has to make to reach the desired level of employability skills hereby referred to as the desired certainty of securing a job. There is a positive link between the number of ESDP activities and graduates' competence level, indicating that the more activities one engages in, the more likely the activities will enhance one's competence level and the more likely this will increase one's employability skills competencies and the certainty of securing a job. The overall loop is negative, indicating goal-seeking behaviour, the goal here being possessing the necessary competencies that will enable one to secure a job.



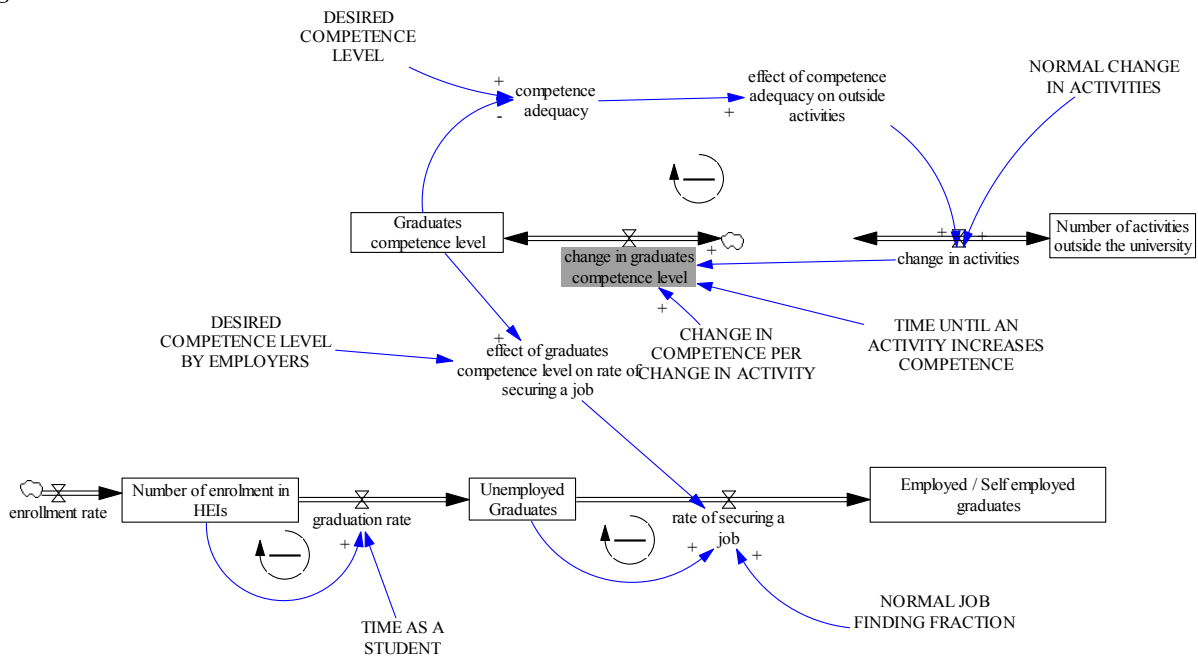
nature of the variables and a stock changes when there is a change in the inflow or the outflow variable. Figure 6.6 shows the stock and flow diagram of the ESDP model as derived from the causal loop diagram (Figure 6.4).

**Figure 6.6. Stock-Flow diagram of the ESDP model**



As depicted in Figure 6.7, there was a need to extend the influence of graduates' competence level on the certainty of securing a job in relation to the HEI system environment of input and output.

**Figure 6.7. Extended ESDP model**



### 6.4.3.5 Measures

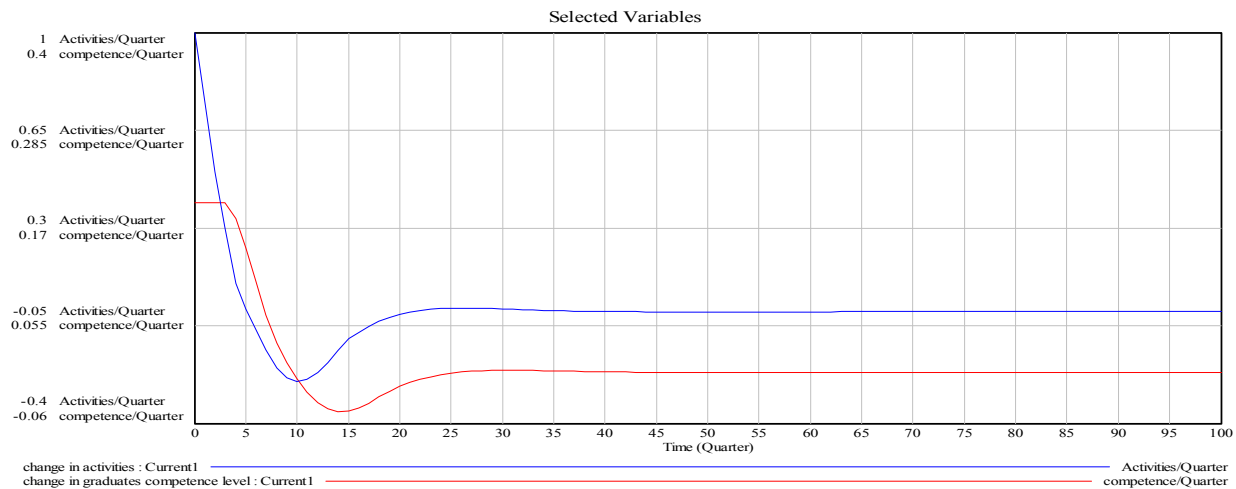
The study first measured time in terms of quarters, where one quarter is equal to three months. This reflects the normal calendar in the education setting. Second, it measured activities in terms of number and lastly competence level (a measure of an increase in graduates' skills as a result of their engagement in ESDP activities) in a normal scale of 0-1.

### 6.4.4. Simulation results

#### 6.4.4.1 Change in graduates' competence level per quarter

As reflected in Figure 6.8, the competence gained per quarter is minimal if a student engages in one activity per quarter. Additionally, when students engage in activities that enhance their competence, no immediate change is observed in the competence level, but a change is observed after the first three quarters, and over time engagement in more activities brings less change in graduates' competence level. After 25 quarters no more change will be observed in the competence level per quarter. Similar trends are also observed in the change in activities over a period of time.

Figure 6.8. Change in graduates' competence level versus change in activities

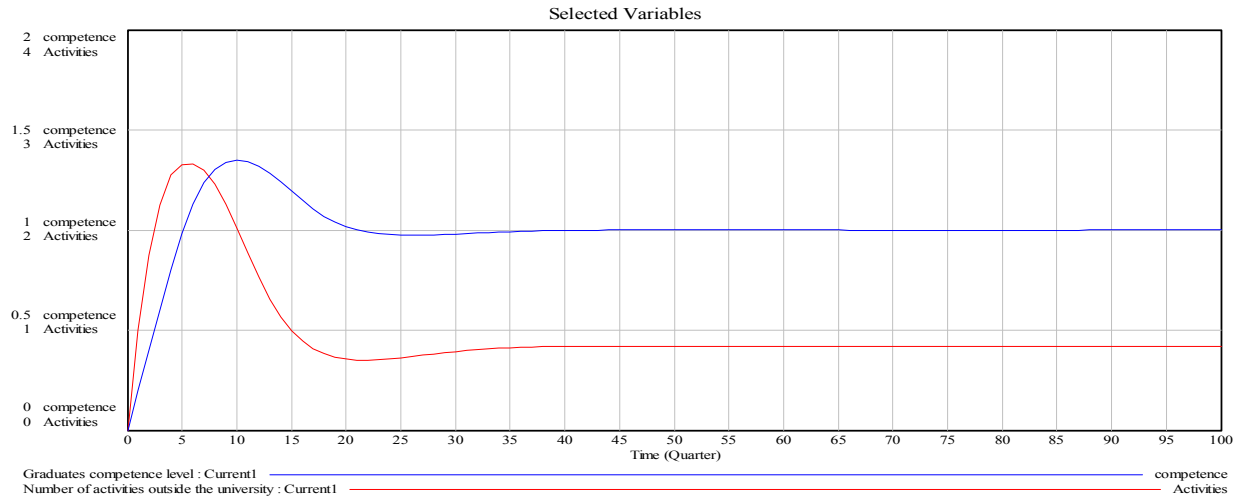


#### 6.4.4.2 Graduates' competence level and number of activities

Figure 6.9 shows the level of competence per quarter in relation to the number of activities. The figure indicates that two activities are not enough to maintain the maximum level of competence which is 1 and hence a gap exists in the number of activities required to maintain the maximum

competence level of 1. This suggests the need to establish the number of activities required to maintain the competence level of 1 over a period of time.

**Figure 6.9. Effect of number of activities on the change in competence per quarter**



#### 6.4.4.3 Additional activities and their influence on graduates' competence level

As reflected in Figure 6.10, one needs to engage in 6 activities to attain the competence level of 1. During the first 5 quarters, one needs to engage in almost 8 activities to maintain the competence of 1. The competence level will further increase to less than 1.5 over another 5 quarters and decline slowly to the maximum level of 1. This stabilizes after 25 quarters. To maintain this competence level beyond the 25<sup>th</sup> quarter therefore, a minimum of 6 activities per quarter is needed throughout one's career. The figure further shows that for the successful development of competence level, one needs to have engaged in one activity prior to ESDP activities as this form a building block for new and more developments.

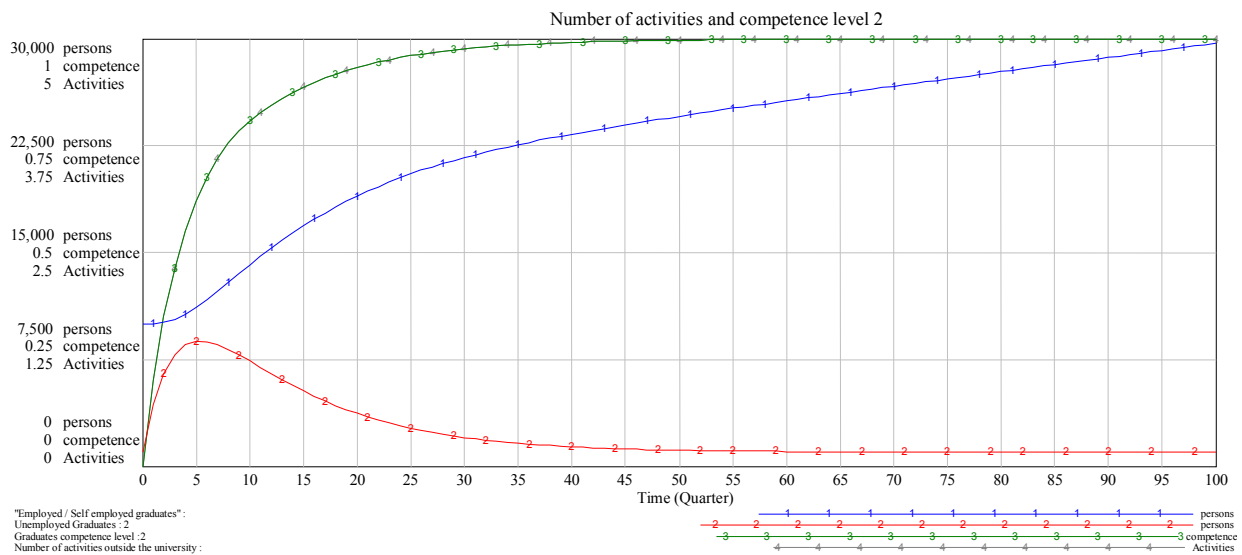


### 6.4.4.5 Alternative policy on the relationship between competence level, number of activities and employability

It can be assumed that the competence obtained by individuals' engagement in ESDP activities changes immediately, because when an individual engages in ESDP activities, there is a change in competence level. In this regard, the simulation results in figure 6.12 show that with 5 activities the competence level of 1 is realized over a period of 40 quarters and it goes on stabilizing. The 10 years' duration first reflects the need for students to start engaging in ESDP activities from lower levels of education. Additionally, learning is a life-long process and so individuals need to engage in learning continuously to enhance the required skills and competencies. A similar trend is seen in graduates, in that as more graduates engage in ESDP activities the rate at which they secure jobs increases and number of unemployed graduate's declines. Compared to the first policy shown in figure 6.11, more time is required if one engages in fewer activities.

Overall, the findings show that it takes time to develop individuals' competence. On average it takes 30 – 40 quarters for an individual to develop the required competencies. This is only possible if the person engages in at least in 5 - 6 activities per quarter and once this level of competence is attained, a person needs to continue engaging in these activities.

**Figure 6.12: Relationship between competence level and number of activities (Alternative policy)**





## **6.5. Discussion**

The study aims to establish the duration and number of employability skills development activities that graduates need to engage in order to enhance and develop their employability skills and subsequent employability. The paper first analyzed the trend in enrolment in HEIs over time, which indicated a growing trend of unemployment among graduates. Combining employability skills development models as advocated by Harvey and Morey (2002) and supported by the literature and interview data, the study findings show that the development of employability and employability skills among HEIs graduates can be enhanced through their engagement in various ESDP activities over a period of time. Based on this a system dynamics model of ESDP activities was built. The model successfully replicated the observed trends in the data. Using the model, the duration and number of activities students need to engage in the course of their studies in HEIs to reduce the number of unemployed graduates was established.

The simulation results indicate that engagement in ESDP activities can reduce significantly the number of unemployed graduates. The findings further show that fostering employability skills is a continuous process that takes the life time of an individual, a view supported by Hager et al. 2002. Studies on employability development processes such as those by Harvey (2000b), Harvey and Morey (2002) and Lees (2002) demonstrate that the development of employability skills and subsequent employability is a process rather than the product of education. Indeed and as articulated by Atkins (1999) employability should be equated with lifelong learning, which sees graduation as a developmental pathway.

The study makes three major contributions. First, the paper contributes to studies on graduates' population in HEIs. When student enrolment is high, some interventions and particularly ESDP activities are needed to facilitate graduates' smooth transition to the labour market. Therefore, the study shows how decision-making behaviour regarding ESDP can reverse the prevailing trend of increasing numbers of unemployed graduates (Tan and French-Arnold, 2012; TCU, 2012). The study also gives the stock-flow perspective on the population of graduates as it increases and how the balance between the number of ESDP activities and the required competencies can continuously increase the number of employable graduates and reduce the number of unemployed graduates. Based on a few major feedback mechanisms, the study represents enrolment decision rules that affect the flow of new students into HEIs and the transition from HEIs to the labour market.

Second, the paper contributes to the modeling literature regarding how employability skills can be developed within HEIs and how such a model can be used to explain the enrolment and departure of graduates from HEIs into the labour market. Apart from earlier studies that used system dynamics in HEIs, such as those by Sterman (2000, pp. 485-490) who modelled the pipeline of faculty promotion and Larson and Gomez (2012) as quoted from Ghaffarzadegan et al. (2013, pg. 4) who built a simple system dynamics model of recruitment in a university and investigated the effects of faculty retirement on hiring for faculty positions, this study offers the first simulation model of the ESDP in relation to the graduate population. The model can be applied to different segments of the graduate population to study the dynamics of socio-demographic factors, course programmes and discipline-specific factors.

Third, the study provides some valuable insights into the time it takes and the number of activities students need to engage in during their studies to foster and develop their employability skills. The model shows that engaging in a minimum of six ESDP activities over a quarter maintains individuals' required level of competence. No formal analysis prior to this study has investigated this duration and the policy implications. Most studies assessing the impact of ESDPs, such as those by (Bridgstock (2009) and (Shukran et al. (2004), show the impact of ESDPs on employability skills development, but the findings do not indicate the number of activities let alone how individuals can maintain the required level of employability skills over time.

The study has some limitations, particularly regarding the set boundary as this gave a better understand of the system's behaviour. The model boundary was therefore limited to the enrolment of graduates taking bachelor's degree programmes, so that the demand for higher education and the availability of job opportunities in the labour market were exogenous factors. Other studies could be conducted to model their effects on the input and output system of HEIs. Additionally, modeling how enrolment at postgraduate level affects labour market prospects could add to the current understanding on how postgraduates make the transition to the labour market. Although studies by Ghaffarzadegan, Hawlei and Desai, (2013) show that policies implemented at the postgraduate level have minimal effect, given the competitiveness of the labour market, graduates could enroll in postgraduate programmes to compensate for the lack of employment, making this a topic of interest to study.

Finally, although some of the findings could be applied to other contexts, using a sample from Tanzanian corporate recruiters might limit the generalization of the study findings. This provides an avenue for further research in other contexts. This study however provides a basis for further research and with further findings more light could be shed on how the skills gap of new graduates could be reduced, a gap that has existed in the literature for a long time (Evers et al. 1998; Askov and Gordon, 1999; Brown et al. 2003; Peddle, 2000; Karadisi, 2012).

### **6.6. A policy recommendation for the ESDP model**

The results from the system dynamics simulation offered valuable insights for making policy decisions regarding the ESDP since it is used as a predictive mechanism. Recommendations emerging from the study provide the rationale for making ESDP activities mandatory, a view shared by Saunders and Zuzel (2010). These should go hand-in-hand with an increased number and variety of ESDP activities offered in HEIs within and across disciplines. Since the activities will be assessed, student engagement in and commitment to the ESDP activities will increase, hence enabling students to develop relevant competencies. The effect of the number of ESDP activities on the development of employability skills and employability can also be observed. Should HEIs add ESDP activities to their curriculum, they would need to be an add-on to existing academic programme activities and would provide more students with access to engagement in real world activities.

To ensure the smooth coordination of ESDP activities, there will be a need for a unit that manages the ESDP activities, a view supported by Kilasi (2011). The unit would establish discipline-related and non-related activities and advise accordingly the management of HEIs on how students will benefit by participating in these arrangements. The ESDP management also needs to ensure that the demands of the labour market. As recommended by Cranmer (2006), employers need to be coordinated and they should offer their expertise for some ESDP activities organized by HEIs.

### **6.7. Conclusion**

The paper provides a detailed example of how to model an ESDP from a systems behaviour perspective. By analyzing the structure of ESDP using system dynamics causal loops and stock-

flow diagrams, the interaction between its variables was observed. The simulation results provide some insights into the performance of the ESDP in HEIs over a period of time. The simulation process provided meaningful results obtained from various parts interacting in the system. The results from the simulation provide an understanding of what possible factors would improve the behaviour of the system and they could be used for planning purposes.

It would be worthwhile for institutions starting ESDPs to analyze their plans using a system dynamics model. Early warning of possible pitfalls in the plan would emerge from the results of the simulation whereby new unanticipated aspects become visible. Existing and operational ESDPs could also benefit by running simulations using the systems dynamics approach. Programme administrators could also run a what-if analysis to get some insight in case of policy changes or a change in macro factors. System dynamics offers a theoretical tool for analyzing such a structure and gaining an understanding of the performance of the system (Sterman, 2000; Forrester, 1973).

## Chapter 7

### 7.1 Overall Findings and Implications

The employability of HEI graduates has been the concern of different stakeholders including the graduates themselves. This is because on the one hand, graduates are claimed not possess the skills demanded by the labour market and they can not employ themselves (Atkins, 1999; Kivinen and Silvennoinen, 2002; Karadisi, 2012). On the other hand, employers are finding it difficult to obtain employable graduates (Shukran et al. 2004; Alias, 2007; Kolawole and Arikpo, 2008; Karadisi, 2012; Panagiotakopoulos, 2012). Among the reasons include mass enrolment of students in HEIs which does not go hand in hand with the teaching capacity, thus reducing the quality of graduates (Kyaruzi, 2012) and the curriculum which does not reflect the changes in the labour market (Kolawole and Arikpo, 2008).

This thesis addresses this problem by exploring how the employability of graduates can be enhanced through their engagement in ESDP activities and studying entrepreneurship as an academic course. Specifically, the thesis addresses the following questions: a) How do employers obtain employable graduates? b) Do HEIs and in particular schools of education facilitate the development of enterprising personalities? c) Does the imparting of employability skills and entrepreneurship education have an impact on the employability of new graduates? d) Can graduates' employability skills be enhanced through their engagement in ESDP activities? And, if so, what is the duration and number of these activities?

To address these questions, the introductory chapter explored the meaning of employability, entrepreneurship education and employability skills development models. The chapter formed the basis for linking the remaining thesis chapters. Chapter two contributes to answering the first question. The chapter examines recent recruitment processes and recruiters' search behaviour using the case study approach. A literature review was conducted to establish what recruitment channels, screening tools and selection criteria are used by corporate recruiters. Interviews were conducted with 22 corporate recruiters in Tanzania that operate at the local, national and multinational level. In relation to employers' recruitment decisions, the study makes grounded propositions regarding the recruitment process and the related channels. The study establishes that communication skills, attitude, curriculum vitae presentation and behavioural

qualities are important aspects that influence the decisions made by corporate recruiters to recruit graduates. Additionally, it shows that there is no linkage between studying entrepreneurship and employers' recruitment decisions. Although studying entrepreneurship as a subject does not determine new graduate's recruitment decision from employer's point of view, it develops individual's employability skills which are mostly demanded by employer (as it has been established in chapter five).

The study contributes first in terms of knowledge added to recruitment theory, whereby indirectly observable qualities such as self-expression and self-confidence are emphasized during the recruitment process. Second, the study highlights the search channels and selection tools used by employers that guide new graduates' recruitment decisions if they want to be recruited by corporate recruiters. HEI's can enhance students' understanding of the tools and criteria to facilitate their smooth transition to the labour market. As an area for further research, the study findings can further be tested using a larger sample of recruiters to allow for generalization of the results.

Chapter three responds to the second research question. The chapter assesses the extent to which entrepreneurship courses are taught in non-business studies and in particular in education schools, since literature on this is lacking (Seikkula-Leino, Ruskovaara, Ikavalco, Mahila and Rytkola, 2010). Teachers form the basic part of the entrepreneurial setting (Mason and Terrence, 1999), and therefore they need to acquire entrepreneurial competencies and the methods to develop them in the education setting (Seikkula-Leino et al. 2010). This will not only facilitate the development of entrepreneurs in the education system, but it will also reduce the capacity gap of entrepreneurship teachers at different levels, views supported by Sabokwigina (2008) and Bange (2005).

The literature was reviewed to establish the state of the teaching of entrepreneurship, in particular the courses, content, facilitators, teaching methods and assessment techniques. The findings show that all education schools have an entrepreneurship module in the Development Studies course, which is mandatory for all first-year students. From 2008 to date, there have been initiatives to introduce stand-alone entrepreneurship courses in schools of education at the undergraduate level, reflected the title of entrepreneurship. The majority of schools are planning to introduce entrepreneurship courses at undergraduate and postgraduate level. Though

entrepreneurship educators demonstrate the specialty demanded by the subject matter, they use traditional teaching and assessment techniques views established also by Solomon (2007).

The study contributes in terms of knowledge added to the teaching of entrepreneurship in Tanzania, where professional teachers form the target group of entrepreneurship courses. The study has practical implications for the management of education schools, entrepreneurship educators and education students in developing countries. Initiatives taken by the management of education schools to make entrepreneurship part of the curriculum can also be applied in institutions where entrepreneurship courses are not offered. In terms of originality, this is the first study to be conducted in the Tanzanian context that focuses on the teaching of entrepreneurship to prospective HEI graduate teachers. The offering of entrepreneurship courses in business studies is done in developed countries (Solomon, 2007; McKeown et al. 2006). There are also initiatives to facilitate entrepreneurship education for non business studies and enabling teachers as a critical success factor (see EU, 2008; 2011). In other developing countries, research shows that most entrepreneurship courses are taught in business schools but few initiatives have been taken as regards non-business studies (Gerba, 2012, Seikkula-Leino, 2010).

Chapters four and five address the third research question. Chapter four assessed the influence of employability skills on the employability of HEI graduates, with the moderating effect of ESDP activities, field of study and study institution. This paper extends the findings obtained from chapter two, in particular as regards skills and attributes. Specifically, the paper addresses the influence of employability skills on the employability of employed and unemployed graduates. The study further provides the potential moderating role of individuals' engagement in ESDP activities and their field of study and how this moderating role differs across disciplines and institutions. Based on a hierarchical regression model and a sample of 378 graduates from Tanzania HEIs, the results provide broad support for the hypotheses. In particular, there is a positive and significant relationship between employability skills and employability that is moderated by individuals' engagement in ESDP activities across disciplines and institutions. Additionally, the study establishes five activities that contribute significantly to enhancing the employability of graduates: competitions, professional clubs, career talks, career guidance and watching inspirational speakers, both live and online. Further research on the

nature of these activities will shed more light on the concept of employability and ESDP activities.

The study contributes to enhancing the current models of graduates' employability, whereby engagement in ESDP activities can reduce the widening gap between the outcomes of HEIs and labour market requirements, also advocated by Shukran et al. (2004). The study recommends that structured ESDP activities should be introduced in HEIs and made mandatory for all students. The activities should also be assessed to enable graduates to develop higher levels of employability and employability skills.

Chapter five assesses the relationship between employability skills and graduates' employability, with the moderating effect of studying entrepreneurship as a course, socio-demographic factors and work experience. The benefits of employability skills have been acknowledged in terms of individual and societal wellbeing. However, the influence of an individual's educational background, work experience and entrepreneurship education on enhancing employability skills (Knight and Yorke, 2003) and how these impact employability has not been well researched. The chapter therefore addresses this gap and specifically assessed the effect of employability skills on graduates' employability and the potential moderating role of educational background and particularly the effect of entrepreneurship education and work experience on this relationship across different socio-demographic backgrounds.

Using the hierarchical regression model and a sample of 402 graduates, the results first support the study hypothesis that there is a significant relationship between employability skills and employability that is moderated by graduates' participation in an entrepreneurship course as a subject. This study puts employability skills into five categories: core skills, personal qualities, process skills, attitude and initiative or enterprise. In order of preference, the study establishes that graduates who pursued an entrepreneurship course are significantly more satisfied with their initiative/enterprise skills, attitude, process skills and personal qualities. No significant difference was observed in the core skills regarding this aspect. Second, and in relation to socio-demographic factors, the split sample indicates that parents' occupation significantly and positively influences the employability of unemployed graduates and lastly, work experience does not significantly influence the employability skills of newly employed graduates. The study recommends that further research be conducted to assess how experience obtained from existing



ESDP initiatives within HEIs enhances the employability and employability skills of new graduates.

Theoretically, the study adds to the current knowledge whereby employability skills form part of entrepreneurship education outcomes. Most studies on entrepreneurship education focus on entrepreneurial intentions, motivation and business creation as the relevant outcomes (Mwasalwiba, 2010). There is however a need to identify the entrepreneurship course structures and characteristics that best develop employability and employability skills. Practically, given increased diversity in the workplace, HEI stakeholders and graduates need also to understand how socio-demographic characteristics (age, gender, parents' occupation and level of education) influence individual employability attributes (Sullivan, 1999) in order to develop new ways of addressing graduate employability.

Chapter six addresses the fourth research question. The paper works with the system dynamics simulation approach to model ESDP using data from employers obtained from the dataset of chapter two. The ESDP activities as established in chapter four can also form part of the model activities. The model is relevant because an analysis of ESDP involves studying the behaviour of a complex interactive system over a period of time. The paper describes how the model was constructed from the individual components and how the system dynamics approach was used to analyze the programme. The model simulation results suggest that to develop graduates' competencies to the required level, a minimum of twenty-five quarters of a year (75 months) is required, during which time graduates need to engage in different activities organized by the ESDP. Furthermore, to maintain the maximum level of employability skills and related competencies, a minimum of six ESDP activities should be compulsory throughout HEIs' and one's lifetime. The findings are in line with Hager and Holland (2006) on the importance of setting undergraduate education in the broader framework of lifelong learning rather than regarding it as an end in itself. The model gives some insights into the ESDP, thus helping to plan for future initiatives.

Summing up, the core theme of this thesis is that employability can be enhanced through an individual's engagement in ESDP activities, which subsequently foster one's employability skills. However, the beneficial impact of ideal employability depends on the interplay between an individual's own initiatives in enhancing employability skills, the study institution and field of

study. Taking a course in entrepreneurship has also been shown to enhance both employability and related skills. The thesis finally offers some areas for further research.

## **7.2 Study limitations and recommendations for further research**

In terms of limitations, this study was done sequentially over a period of two years, which limited addressing issues such as causality among the study variables (Taris and Kompier, 2003). A longitudinal study on the study variables could address such issues. The present study as well collected data in Tanzania only and the selection of the firms was purposive limiting the generalization of the findings in other sectors and or countries. In this regard, more samples need to be used to represent the total population of employers in the Tanzanian context. It might also not be possible to generalize the results in other contexts and this is an area recommended for further research.

More research is also needed on how employability can be operationalized as this may vary among cultures and countries (Ployhart, Wiechmann, Schmitt, Sacco, and Rogg, 2003). For instance, in this study the items used to measure internal and external employability were adjusted from Rothwell and Arnold (2007) and as such further research in other contexts and more samples need to be taken to ensure the validity of the items.

Regarding other areas for further research, first, following the broad categorization of employability skills such as those by Yorke and Knight (2004), SCANS (1991), Lorraine and Sewel (2007), CBI (2012), DEST (2002), Saunders and Zuzel (2010), Yusof et al. (2012) and Andrews and Higson (2008), conducting a study using a meta-analysis approach will add to the current understanding of the categorization of employability skills and the related attributes. This will provide greater understanding of what general employability skills are needed and the skills that are discipline specific. Second, limited research has been conducted on how employability skills are assessed. Other than the study by Rasul, Rauf, Mansor and Puvanasvaran (2012), who developed an assessment tool to help lecturers to produce competent graduates with the employability skills needed by industry, limited scales are available to guide this process in education institutions. Additionally Rasul et al (2012) used SCANS (1991) scale as a reference point, focusing on seven employability skills (interpersonal skills, thinking skills, personal qualities/values, resource skills, system and technological skills, basic skills and informational skills). This limits the extrapolation of other categories of employability skills. Conducting a

meta-analysis study on employability skills could therefore facilitate the development of such a scale and hence facilitate the enhancement of graduates' attributes within HEIs. The employability skills assessment tool could be tested and validated by HEI stakeholders (employers, lecturers and graduates) and therefore applied to get a valid score of the skills and attributes of graduates.

Third, apart from studies and policy documents detailing the nature of activities that enhance employability skills, such as those by the Department of Education Students Service (DESS) (1999) and Datta et al. (2007), limited research has been done on the number of activities that are sufficient to enhance employability and related skills. This PhD thesis developed a model that indicates the number of activities students need to engage in (a minimum of 6 activities per five quarters) to enhance employability skills. The same study reveals that students in the course of their studies engage on average in only 3.5 activities, which according to the study is insufficient to develop the required employability and related skills or competencies. This indicates a gap between what is required and what actually takes place and so a need for a policy that details how this gap can be bridged.

This study also indicates that employed graduates differ significantly from the unemployed as regards the following activities: professional clubs, career guidance, career talks, watching inspirational speakers online, volunteering and participating in competitions. Since the study did not explore the influence of each activity on employability and related skills, further research, for example, on the nature of each activity will shed more light on how employability and related skills can be enhanced and therefore facilitate the employability of graduates.

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## Appendices

### A: Interview Questions (Employers)

1. Please introduce yourself and your company in terms of its ownership and the services or products it offer.
2. How do you recruit graduates in your company? What are the recruitment procedures? Is there a policy? a special unit or department? How do you select the qualified graduates? Is there a set of questions? Tests? Tools? Interview(s)? Who participate in the interview process?
3. What do you consider when recruiting graduates? What criteria do you use? (Specialization, Competencies? GPA? Certain skills? Skills required by the vacant post?)
4. What skills and /or competencies do you need to see and find from fresh graduates? How realistic are these skills and /or competencies among fresh graduates?
5. What challenges do you face working with fresh graduates? How do you cope and/or solve such challenges? How helpful are these mechanisms in attaining the required skills and competencies?
6. How do you find recent graduates compared to previous ones in terms of their entrepreneurial attitude? (The way they think, their creativity and innovativeness in bringing new ideas, belief that they can etc) Have their expectations changed over time?
7. What do you think can be done at the university level (curriculum and / or courses) to enhance these required skills and the entrepreneurial attitude among fresh graduates?
8. In going through fresh graduate's CV's; does a major in entrepreneurship make a difference? Suppose someone has studied entrepreneurship education (EE) course, do you take it as a merit and therefore think that he/she will behave differently from someone else who did not study any EE course?
8. From your point of view, what do you think influences recruitment decisions when recruiting fresh graduates? Do you see any connection between entrepreneurship education and fresh graduates' employment rate and employability?
9. What is the turnover rate of the fresh employed graduates? In average, how long do they work with you before leaving the firm? Where do they go now compared to previous years?

## B: Survey of graduates employed in corporate firms in Tanzania

Dear Graduates,

We kindly ask you to participate in this survey. The survey has been designed to assess how recent graduates (from 2010 to date) managed to secure employment in corporate firms. The survey is conducted as a requirement for the completion of PhD in Entrepreneurship at the University of Siegen. Study findings will assist Higher Education Institutions (HEIs) and their stakeholders to improve the employability of graduates.

There is neither right nor wrong answer, therefore, we kindly request you to respond to the questions freely and to the best of your knowledge. It should not take longer than 15 minutes to complete all the questions. Please note that the information provided hereunder will be solely used for academic purpose and will be treated with the utmost confidentiality.

**INSTRUCTIONS:** The questionnaire has four (4) parts. Please fill in the relevant information by either putting a tick (✓) or 'X' or by circling the number appropriate. Then return the questionnaire by email to [katherine.fulgence@uni-siegen.de](mailto:katherine.fulgence@uni-siegen.de) the soonest.

### Part 1: Your employment status

Please fill in relevant information and where appropriated put a (✓).

- Please indicate your employment status: *(Tick all that apply)*  
 Full-time Employee     Self-employed     Part-time employee     Unemployed  
 Studying     Other (Please specify) \_\_\_\_\_
- Please indicate any work experience that you had before joining university  
 None     1 month – 2 years     3 – 5 years     6 years and above
- Have you studied entrepreneurship course at the university?     Yes     No
- Have you studied entrepreneurship course outside the university?     Yes     No
- Please name the title of any entrepreneurship course(s) that you studied at the university (if any) \_\_\_\_\_
- In which sector are you employed? *(Please put a (✓) tick)*  
 Public     NGO     Private     Other; *(please specify)* \_\_\_\_\_
- Please rate your views on the following work characteristics as per the distribution score.

Score	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
distribution	1	2	3	4	5

Work characteristics	Strongly disagree to Strongly agree				
	←				→
1. My work is related to the field of my study	1	2	3	4	5
2. My work is related to the level of my qualification	1	2	3	4	5
3. I am overqualified for my current work	1	2	3	4	5
4. My work demand more skills than I currently possess	1	2	3	4	5
5. I prefer working in the field of my study / specialization	1	2	3	4	5
6. I prefer working in a different field of study	1	2	3	4	5
7. My salary reflects very well my current qualifications	1	2	3	4	5
8. I am very satisfied with my current salary	1	2	3	4	5

8. Please rate your level of agreement on the following employability and personal control items as per the distribution score.

Score	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
distribution	1	2	3	4	5

Employability and personal control items	Strongly disagree to Strongly agree				
	1	2	3	4	5
1. I have good prospects in this organization because my employer values my personal contribution	1	2	3	4	5
2. My personal networks in this organization help me create many business opportunities	1	2	3	4	5
3. Even if there was downsizing in this organization I am confident that I would be retained	1	2	3	4	5
4. My outstanding academic performance has enabled me excel in my career	1	2	3	4	5
5. I am aware of the opportunities arising in this organization even if they are different to what I do now	1	2	3	4	5
6. The skills I have gained in my present job are transferable to other occupations outside this organization	1	2	3	4	5
7. I can use my professional networks and business contacts to develop my career	1	2	3	4	5
8. I have a good knowledge of opportunities for me outside this organization even if they are quite different to what I do now	1	2	3	4	5
9. People who do the same job as me who work in this organization are valued highly	1	2	3	4	5
10. I could easily re-train to make myself more employable elsewhere	1	2	3	4	5
11. If I needed to, I could easily get a similar job to mine in almost any organization	1	2	3	4	5
12. People who do a job like mine are highly demanded by other organizations	1	2	3	4	5
13. Anyone with my level of skills and knowledge, and similar job and organizational experience, will be highly sought after by employers	1	2	3	4	5
14. I could get any job, anywhere, so long as my skills and experience are reasonably relevant	1	2	3	4	5
15. People with my kind of job-related experience are very highly valued in their organization and outside whatever sort of organization they have previous worked in.	1	2	3	4	5
16. I have always worked hard in order to be among the best in my field	1	2	3	4	5
17. I create the business and work opportunities I take advantage of	1	2	3	4	5
18. I know that social and economic conditions will not affect my success in work and in business	1	2	3	4	5
19. I believe that in the world of work, the work of competent people will always be recognized	1	2	3	4	5
20. I believe that any organization can become more effective by employing competent people	1	2	3	4	5
21. I feel like a total failure when my work plans don't turn out the way I think they should	1	2	3	4	5
22. I feel self-conscious when I am with very successful people	1	2	3	4	5
23. I always persist very long on a difficult job before giving up	1	2	3	4	5
24. I often feel good about the quality of work I do	1	2	3	4	5
25. I believe it is important to make a good first impression	1	2	3	4	5

**Part 2: Recruitment Process**

9. Please respond to the following questions by putting a tick (√) where applicable and a cross 'X' where not applicable)

- a) Which of the following method(s) did you use to search for your first job?
- b) Please indicate the one that helped you to secure your first job.

Recruitment channels	I used these method(s) to search for a job	I got job through this method
1. Advertisements in media		
2. Recruitment agency		
3. Graduate recruitment program		
4. Online platform / Internet/ Job boards		
5. Internship		
6. University career talk		
7. Recommended by university academic staff		
8. Blind application (Dropped in my CVs)		
9. Informal contacts/networks		
10. Social media like Face book, LinkedIn		
11. Established contacts in the course of my studies		
Others, (please specify):		

10. How applicable, according to your perception were the following aspects for your employer in screening your CV? Please circle the number appropriate as per the distribution score.

Score distribution	Least applicable	Less applicable	Neutral	Applicable	Most applicable
	1	2	3	4	5

Characteristics	Least applicable to Most applicable				
	←				→
1. Strength of cover letter	1	2	3	4	5
2. Format and presentation of CV	1	2	3	4	5
3. Age of the applicant	1	2	3	4	5
4. Level of Education	1	2	3	4	5
5. Internships / Work placements	1	2	3	4	5
6. Nature of extra-curricular activities	1	2	3	4	5
7. Type of degree and/or discipline of study	1	2	3	4	5
8. Studying abroad	1	2	3	4	5
9. Non-credit courses studied outside the university	1	2	3	4	5
10. Personal preferences	1	2	3	4	5
11. Academic performance	1	2	3	4	5
12. University awarded the degree	1	2	3	4	5
13. Year graduated	1	2	3	4	5
14. Studied entrepreneurship course	1	2	3	4	5
15. Gender	1	2	3	4	5
16. Relevant work experience	1	2	3	4	5
17. Family background	1	2	3	4	5
Any other (please specify)					

11. Please indicate your level of agreement on the nature of the interview questions that were commonly asked during your first interview session as a fresh graduate?

Score	Least common	Less common	Neutral	Common	Mostly common
distribution	1	2	3	4	5

Employers ask questions of the following nature;	Least common to Mostly common				
	←				→
1. Questions that measure attitude	1	2	3	4	5
2. Problem solving questions	1	2	3	4	5
3. Questions that assess future career aspirations	1	2	3	4	5
4. Decision making questions	1	2	3	4	5
5. Competence based questions	1	2	3	4	5
6. Questions that measure behavioral aspects	1	2	3	4	5
7. Basic technical skills	1	2	3	4	5
8. Aspects not taught in school (extra-curricular activities)	1	2	3	4	5
Any other (please specify)					

12. From your point of view, what attributes do you think the interviewers considered important and therefore assessed them during your first interview? *(Please rate the level of importance by circling the number appropriate as per distribution).*

Score	Least important	Less Important	Neutral	Important	Very important
distribution	1	2	3	4	5

Interview attributes	Least important to Very important				
	←				→
1. Individual attitude	1	2	3	4	5
2. Attitude towards work	1	2	3	4	5
3. Behavioral aspects	1	2	3	4	5
4. Personal engagements	1	2	3	4	5
5. Value addition to the company	1	2	3	4	5
6. Entrepreneurship skills	1	2	3	4	5
7. Professional competence	1	2	3	4	5
8. Knowledge about the company	1	2	3	4	5
9. Leadership and Managerial skills	1	2	3	4	5
10. Presentability of the person	1	2	3	4	5
11. Physical appearance	1	2	3	4	5
12. Social competence	1	2	3	4	5
13. Verbal skills (ability to communicate effectively)	1	2	3	4	5

### Part 3: Graduates' employability skills

13. Please rate the skills items given under the following two headings:

- (a) Your level of importance on each employability skills attributes in securing and maintaining a job  
 (b) Your level of satisfaction in demonstrating the skills attributes

Score distribution	Least important	Less important	Neutral	More important	Very important
	Least satisfied	Less satisfied	Neutral	More satisfied	Very satisfied
	1	2	3	4	5

Employability skills attributes	Least important to Very important					Least satisfied to Very satisfied				
<b>20.1 Cores skills (technical knowledge and academic skills of graduates)</b>										
1. Numeracy (manipulation and application of numbers in practical contexts)	1	2	3	4	5	1	2	3	4	5
2. Business acumen (basic understanding of the key drivers for business success)	1	2	3	4	5	1	2	3	4	5
3. Attention to detail (focused attention in which key points are recognized)	1	2	3	4	5	1	2	3	4	5
4. Creativity (ability to produce a novel idea and turn it into a practical one)	1	2	3	4	5	1	2	3	4	5
5. Information retrieval (ability to access different sources, technologies and media)	1	2	3	4	5	1	2	3	4	5
6. Language skills (possession of more than a single language)	1	2	3	4	5	1	2	3	4	5
7. Critical analysis (ability to think through a problem or situation and come up with a different view point)	1	2	3	4	5	1	2	3	4	5
8. Communication skills (ability to explain what you mean in a clear and conscious way through written and spoken means including listening and questioning)	1	2	3	4	5	1	2	3	4	5
9. Self management (having a personal vision, goals, readiness to accept responsibility, self starter ability and flexibility)	1	2	3	4	5	1	2	3	4	5
10. Oral presentations (ability to explain effectively and argue positively and confidently information to a group)	1	2	3	4	5	1	2	3	4	5
<b>20.2 Personal qualities (fixed self – belief attributes that do not change over time and are incremental)</b>										
11. Self awareness (awareness of own strengths and weaknesses, aims and values)	1	2	3	4	5	1	2	3	4	5
12. Self confidence (confidence in dealing with the challenges that employment and life brings up)	1	2	3	4	5	1	2	3	4	5
13. Emotional intelligence (sensitivity to others' emotions and feelings and an understanding of the effects that they can have to work and relations)	1	2	3	4	5	1	2	3	4	5
14. Adaptability (ability to respond positively to changing circumstances and new challenges)	1	2	3	4	5	1	2	3	4	5
15. Willingness to learn (ability to manage own learning, invest time and effort to learn new skills in any setting)	1	2	3	4	5	1	2	3	4	5

Employability skills attributes	Least important to Very important					Least satisfied to Very satisfied				
	1	2	3	4	5	1	2	3	4	5
16. Reflectiveness (readiness to improve own performance based on feedback)										
<b>20.3 Process Skills (ability to use technology, colleagues and own potential to process and manage information, work and people)</b>										
17. Technology (ability to use a range of software and willingness to learn new IT skills)										
18. Planning (managing time and priorities, meeting deadlines and targets)										
19. Transferable skills (applying subject understanding to new contexts)										
20. Problem solving (developing creative, innovative and practical solution across a range of areas)										
21. Decision making (choice of the best option from a range of alternatives including delegation)										
22. Team work (working well with people from different disciplines, backgrounds and expertise to accomplish a goal)										
<b>20.4 Initiative and Enterprise (Ability to initiate new things and use relevant networks to realize them)</b>										
23. Initiating innovative solutions										
24. Ability to translate own ideas into actions										
25. Ability to develop a strategic, creative, long term vision										
26. Ability to take risk										
27. Ability to identify opportunities not obvious to others										
28. Adapting to new situations										
<b>20.5 Attitude and Work ethics (individuals' disposition towards work)</b>										
29. Self motivation										
30. Openness to change										
31. Taking responsibility for my own action										
32. Managing traits (spontaneous reaction to situations)										
33. Ability to cope with work pressure										
34. Time management										

14. In relation to **Qn. 20 above**, which of the employability skills attributes do you think you need more training in order to enhance your work performance? (Please put a tick where appropriate, specify as well the skills attributes example under core skills you can mention for example; attention to detail and so forth)

- Core skills (please specify) \_\_\_\_\_
- Personal qualities (please specify) \_\_\_\_\_
- Process skills (please specify) \_\_\_\_\_
- Attitude and work ethics (please specify) \_\_\_\_\_
- Initiative and Enterprise (please specify) \_\_\_\_\_



**Part 4: Enhancing your personal employability skills**

15. Please rate your views on how often you engaged in these activities in the course of your study at the university?

Score	Not at all	Less often	Often	More often	Very often
distribution	1	2	3	4	5

Activities	Not at all to Very often				
	1	2	3	4	5
1. Attending non-credit courses outside the university like entrepreneurship	1	2	3	4	5
2. Participating in students' professional clubs or organizations	1	2	3	4	5
3. Reading self help books	1	2	3	4	5
4. Career guidance (where you learn how to write CV, self assessment tests, interviewing skills and career plan)	1	2	3	4	5
5. Attending conferences and workshops like those organized by British Council	1	2	3	4	5
6. Participating in career talks (organized within or outside the university)	1	2	3	4	5
7. Listening to inspirational speakers (live and / or online)	1	2	3	4	5
8. Examining websites dedicated to career development	1	2	3	4	5
9. Reading and watching videos about successful people	1	2	3	4	5
10. Writing employment and/ or self-employment plan	1	2	3	4	5
11. Exchanging business cards with professionals, investors and entrepreneurs	1	2	3	4	5
12. Participating in business plan competitions	1	2	3	4	5
13. Volunteering / Work placements in different organizations / family business	1	2	3	4	5

16. What do you think can be done at the university to enhance graduates' employability?  
(Please rate in order of importance by circling the attributes indicated as per the distribution score.)

Score distribution	Least Important	Less Important	Neutral	Important	Most important
	1	2	3	4	5

Activities	Least important to Most Important				
	1	2	3	4	5
1. Encouraging students to engage in activities enlisted in Qn. 15.	1	2	3	4	5
2. Need for discipline career development programmes	1	2	3	4	5
3. Need for collaboration among employers and universities	1	2	3	4	5
4. Need to enhance graduates presentation skills	1	2	3	4	5
5. Need for curriculum change and / or mapping	1	2	3	4	5
6. Need for more work placement opportunities	1	2	3	4	5
7. Improve the teaching process and teaching methodology	1	2	3	4	5
8. Develop graduates' interviewing skills	1	2	3	4	5
9. Improve the quality of teachers	1	2	3	4	5
10. Students to make individual initiatives	1	2	3	4	5
11. Assess students engagement in extra-curriculum activities	1	2	3	4	5
12. Making entrepreneurship course mandatory for all students	1	2	3	4	5
Others (please specify):					

17. What are the top 3 challenges you as a graduate faced while working with your first employer?

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**Basic information**

18. Your Gender:  Male  Female

19. Your Age (years):  18-34  35-44  45-54  55 and above

20. Please fill in your level of education profile. Put tick (✓) where appropriate and N/A where not applicable.

<b>Educational profile</b>	<b>Bachelor's Degree</b>	<b>Masters' Degree</b>	<b>Other qualification(s)</b>
Name of University graduated			
Year graduated			
Degree program			
Specialization			

21. Your Parent's occupation

Civil servants  Self-employed parents  Either Employed and Self employed parents

Any other occupation (*please specify*) \_\_\_\_\_

22. Your parents / Guardians' Level of Education

Bachelors Degree  Above Bachelors' (Doctorate, Masters, Post graduates)

Professional qualifications  Advanced / Ordinary Diploma

Secondary (A and O- level)  Any other education (*please specify*) \_\_\_\_\_

We kindly request you to voluntarily provide us with your details just in case should we need further information.

Name of your current employer.....

Respondent's e-mail address and mobile phone.....

**Thank you for participating in our survey**

**NB: For unemployed graduates question 6 was replaced by this question;**

Please indicate the kind of activities you currently engage by putting a tick (✓) where appropriate;

Work on Part –time job  Volunteering in firms or in relatives / family business

Any other activity (*please specify*) \_\_\_\_\_

The questions in part 2 were phrased accordingly to reflect their status and in particular unemployed graduates were asked on the recruitment channels they have used to search for jobs and the ones that they think have been successful for those who secured jobs (Question 10). Questions 11, 12 and 13 requested them to rate their views on what employers focus on when screening CV of a new graduate, nature of interview questions and the aspects employers focus on when interviewing a fresh graduate.

Most of the questions in part 3 remained the same except Question 17 which was rephrased to reflect the challenges they anticipate working with their first employer.

**C: Specification of main and sub-categories of recruitment processes including illustrative quotations**

Main / Sub category	Literature support	Illustrative quote	Nvivo (%)
<b>A: Nature of interview questions</b>			
<b>Hard skills</b>			
Basic technical skills	Lorraine and Sewell, 2007; Saunders and Zuzel, 2010; Tan and French-Arnold, 2012;	<i>"We also focus on the technical knowledge relating directly to the job to assess their general understanding of the subject matter. For example, what is the difference between banking and other financial institutions" (10_Banking and Financial Institutions)</i>	40.9
<b>Soft skills</b>			
Aspects not taught in the schools	Vilka and Pelse, 2012; Tixier, 1996; Cohen-Scali, 2003; McQuaid and Lindsay, 2005; Ahmed, 2009; Lowden et al. 2011; Harvey, 2001.	<i>"Some of the skills we possess were never learnt at school, but the skills we learnt in church, from parents and in the course of making batiks, for example, are very important. These skills form a repertoire of skills in addition to basic skills like communication, organizational skills, inter-personal skills and so forth" (17-18_Recruitment Agency)</i>	59.1
Future career aspirations	Knight, 2003; Fugate et al. 2004; McIlveen, Burton and Beccaria, 2013; Rottinghaus, Day and Borgen, 2005.	<i>"Graduates need to know why they want employment and how long they will work before turning to, for example, self-employment. Currently there is a move towards self-employment, one can also get employed to gain experience and thereafter leave the firm... but before that they need to leave a legacy. Think of the legacy you want to leave. For example, what should I start with in order to leave a legacy? Therefore select the job you want to achieve that purpose and be purpose driven..." (Recruitment Agency_42-42)</i> <i>"Graduates do not plan for their future career. To them career is money and material things, they keep on moving from one institution to another. They need to sit down and realize what they want and plan for it now. If you want to become a permanent secretary say, you need to understand where to start from now....(27_Industry)</i>	
Competence based questions	Kodz et al. 1998; Rees and Porter, 2003; Tixier, 1996; Ahmed, 2009; Sanchez and Heene, 2005.	<i>"First in interviews you need to ask the right questions, if you ask the wrong questions you won't get the person you want. The questions are competency based and this gives us an opportunity to generalize or to say this is what happened and this is what they did...." (Recruitment Agency_37)</i>	18.2
Problem solving questions	Walker, 1995; McQuaid and Lindsay, 2005; DEST, 2006.	<i>"We need graduates to bring real life experience., how to think through a problem and come up with a solution. There is no wrong or right answer, but we just want to know the way one thinks. We want to assess the ability of one to see a problem..."(Auditing firm 14)</i>	
Behavioral aspects	Johnson and Burden, 2003; Fugate et al. 2004.	<i>This is reflected in the factors affecting recruitment decisions (Appendix C:part C)</i>	13.6
Decision making questions	Walker, 1995; Hillage and Pollard, 1998; Bobbit, Inks, Kemp, and Mayo, 2000.	<i>"We are interested in candidates who have an understanding of current issues, new developments in the country, etc., and the ability to advise a client and make an informed decision on behalf of the company. Someone who can make a decision from a broader perspective taking into consideration the company's interests...."(Auditing firm 15)</i>	13.6
Questions that measure attitude	Johnson and Burden, 2003; Newton et al. 2005.	<i>This is reflected in the factors influencing recruitment decisions (Appendix C: part C)</i>	13.6

<b>B: Skills and knowledge expectations from employers during the interview process</b>			
Attention to detail	Tixier, 1996	<i>“Another thing is attention to detail, most of our graduates lack attention to detail. When someone reads an article, the way we perceive it is different from others. We need to take time to understand and analyze issues in detail. At times I overlook some issues, and this is reflected, for example, in the way I write an email. During interviews, I ask follow-up questions and so forth to get the details. It is a corporate culture” (25_Oil Trading Company)</i>	4.5
Planning aspects	Yorke and Knight, 2004; DEST, 2006; Knight, 2003.	<i>“We also look at the planning aspects and the ability to meet deadlines, as some people spend nights here to meet a deadline. We also look at versatility - ability to push things, and make sure they work according to your expectations and that you meet the deadline” (8_Auditing firm)</i>	4.5
Business acumen	Yorke and Knight, 2004; Zapalska, 1997; Socha and Weisberg, 2002; Fayolle, 2007.	<i>“Other skills include the right business acumen, graduates who are better in terms of knowledge than our clients. Auditors have to understand the business / entity / industry in which the firm they are auditing operates...” (16_Auditing firm)</i>	9.1
Personality skills	Hambur, Rowe and Luc, 2002; Nagarajan and Edwards, 2014; Rottinghaus et al. 2005; Tixier, 1996.	<i>“Interview questions are set to capture the attitude and an individual’s personality and personal qualities. For example, they can find out from the applicant how they spent their weekend and so forth....” (21_Oil Trading Company)</i>	9.1
Technical skills (Job related skills)	Cai and Shumilova, 2011.	<i>“Other skills are relevant as per the demands of the post, for example, communication skills are important for marketing people, numbers are relevant for accountants” (23_Oil Trading Company)</i>	13.6
Computer literacy	DEST, 2006; Elias and Purcell, 2004; Yorke and Knight 2004; Hager and Hodgkinson, 2009; Wellman, 2010; Cai and Shumilova, 2011.	<i>“Basic computer skills are also important and employers are ready to train graduates in basic skills once employed...” (23_Recruitment Agency)</i>	13.6
Presentability	Hillage and Pollard, 1998; DEST, 2006; Tan and French-Arnold, 2012.	<i>“At times we ask for experience, but if graduates lack this then we focus on things like personality, communication skills, presentability of the person and how they communicate with other senior members/levels...” (18_Public sector)</i>	23
Interpersonal skills	Barnard and Nel, 2009; Hambur, Rowe and Luc, 2002; Nagarajan and Edwards, 2014; Andrews and Higson, 2008.	<i>“We know graduates do not have experience, and so we assess core values like integrity, whether they are a team player, how they collaborate with others...” (8_Mining sector)</i>	13.6
Leadership and Managerial skills	Tan and French-Arnold, 2012; Pauw, Oosthuizen and van der Westhuizen 2006; Hambur, Rowe and Luc, 2002.	<i>“I want to work with someone who has been involved in the community and other things because that is someone who will be a leader tomorrow, getting involved in activities that open up their minds, making them think outside the box. If the graduate had taken a leadership role in the university, you already know that this person can take a leadership role....” (31_Recruitment Agency)”</i>	18.2
Proactiveness	Ashford and Taylor, 1990; Crant, 1995; 2000; Fugate et al. 2004; Seibert et al. 2001.	<i>“Graduates don’t come with initiatives, they do not have that self-starter spirit., it is not there. They are not proactive” (27_Industry). “We need proactive people, people who can add value to our organization and to our clients. Someone who is ready to read always, people who initiate /are self-starters, they do not wait to be told what to do, people eager to learn, who are not content with what they know. A lot of changes are happening in our global market and so we need people who can read to keep up-to-date with current developments” (6_Recruitment Agency)</i>	27.3

Integrity	DEST, 2006; Tan and French-Arnold, 2012; Tixier, 1996; Vilka and Pelse, 2012.	<i>"In our firm, there are lots of transactions going on, large volumes of sales; the sector is seasonal.. .We assess integrity as there are lots of temptations, oil is gold. People may be tempted to steal..."(5_ Oil Trading Company)</i>	31.8
Flexibility and adaptability	Ashford and Taylor, 1990; Crant, 1995; 2000; Fugate et al. 2004; Becker, 1975; Little, 2001; Tan and French-Arnold, 2012.	<i>"We also assess graduates' adaptability to the world of work and to the culture of the clients' environment. We also look for flexibility to work, places and so forth" (8_ Auditing firm)</i>	50
Company knowledge and value addition	Cable and Turban, 2001; Turban et al. 1998; Barber and Roehling, 1993; Collins and Han, 2004.	<i>"Marry the vision, culture and purpose of the organization. For example, you position yourself in relation to the company and what is special about you that you will bring to the company in terms of values and vision..." (39_ Recruitment Agency)</i>	72.8
Communication skills	McQuaid and Lindsay, 2005; DEST, 2006; Tan and French-Arnold, 2012; Archer, W. and Davison J. 2008.	<i>"People cannot confidently express themselves. So someone has to keep on probing with the right questions but in reality one has to say it all before being asked...." (16_ Auditing firm) "Some graduates have good GPA, but they cannot communicate, we are a multinational company. Some cannot speak English and do not understand what is communicated. There are first-class students who cannot portray their good passes..." (8_ Mining sector)</i>	90.9
<b>C: Factors influencing recruitment decisions</b>			
<b>Hard skills</b>			
Education level	Mincer, 1991; Tome, 2007; Juhdi et al. 2010; McQuaid and Lindsay, 2005; Barnard and Nel, 2009; Lorraine and Sewell, 2007, Elias and Purcell, 2004.	<i>"We recruit only graduates and we advertise for positions like bank tellers" (7_ Banking and Financial Institution). "We need a degree as entry level in our organization" (6_ Oil Trading Company).</i>	22.7
Ability to do the job	Tixier, 1996; Tan and French-Arnold, 2012	<i>"We look for people who can do the job, the right person, not their outlook but rather I look for output"(23_ Manufacturing; 21_ Oil Trading Company). "People have very good certificates. We do not employ the certificates. We look for the ability of a person to translate what they have learned or translate the certificates into action. Certificates are there to back up, beauty and books have to go together ...." (25_ Telecoms).</i>	22.7
CV presentation	Tixier, 1996; Ahmed, 2009; Lowden, et al. 2011; Hillage and Pollard, 1998.	<i>"Presentation of the CV is very important. For example, we receive about 2500 applications a year. Therefore a summary of your experience, your profile and a letter are mandatory when applying for a post" (62_ Auditing firm). "CV needs to tell how one is different from the other, bearing in mind that both have studied the same degree programme.... Therefore present yourself on paper... the covering letter should be impressive... take note of the grammar and spelling... (29, 34_ Recruitment Agency).</i>	31.8
Studying abroad	Pauw, Oosthuizen and van der Westhuizen 2006; Cai and Shumilova, 2011.	<i>"We enhance diversity. We also have a diaspora of universities (in UK and US) who inform us of upcoming graduates. We track them and attract them as interns and we recruit for diversity purposes..."(10_ Auditing firm)</i>	13.6
Academic	Tan and French-Arnold, 2012; Knight,	<i>"In our firm the first recruitment criterion is the GPA with a cut-off point of 3.5. For example, 800</i>	9.1

performance	2003; Barnard and Nel, 2009; Lorraine and Sewell, 2007.	<i>applicants can be reduced to 300 by this criterion” (27_Auditing firm). “In our firm we look at the pass mark minimum lower second as the first criterion. We consider engineers with a GPA mostly above GPA 3 and particularly Mechanical and Electrical Engineers” (16_Oil trading company).</i>	
Basic technical skills (Occupation/job-specific skills)	Robinson, 2000; Saunders and Zuzel, 2010; Tan and French-Arnold, 2012; Cai and Shumilova, 2011.	<i>“The relevance of technical skills to the vacant post is also important. For example, for supervisory posts we consider engineers and particularly Mechanical and Electrical Engineers” (15_Oil Trading company). “The first oral interview assesses the technical aspects and the one responsible is the respective head and Human Resource personnel or Engineer and Human Resource personnel” (23_Oil Trading company).</i>	22.7
Internship	Tan and French-Arnold, 2012; Nagarajan and Edwards, 2014; Taylor, 1988; Gronski and Pigg, 2000; McMahon, 2004.	<i>“We do not advertise a post. First, we take a specific number of students as trainees from practically all over the country. We put them on our database. When I need someone, I visit the database. We take all technicians and sales people from all fields and we call them for interview. Some of them I know... and I know we will get along well...” (10_Manufacturing)</i>	13.6
<b>Soft skills</b>			
Communication skills	Canny, 2004; Tan and French-Arnold, 2012; Nagarajan and Edwards, 2014.	<i>“The need for self-expression and self-confidence, ability to sell yourself, the tone, the selection of words... referring to previous work assignments, how to link studies and organizations, demonstrate, for example, where you applied leadership skills. This is what we focus on” (21_Oil Trading company).</i>	90.9
Positive attitude	Dench et al. 1998; Canny, 2004; Tan and French-Arnold, 2012; Hillage and Pollard, 1998; Shukran et al. 2004.	<i>“..Mostly is the mindset, we need people with a positive attitude, people who are ready to learn. We had a teacher who was inflexible, could not adjust to the environment... the art of digesting issues in relation to the environment... being positive... self-directed. Some teachers are four walled, i.e. once they are done with the class that is all. Attitude matters, it goes beyond the way you think, the way you act and more. Some teachers have a negative attitude, which is not good for the teaching profession (19_School).</i>	77.3
Behavioural aspects	Brencic and Norris, 2012; Barnichon, 2010; Frese and Fay, 2001; Crant, 2000.	<i>“You can also tell whether a person is good or not by the way they walk. There are graduates who cannot project themselves well... we need graduates who project an image of themselves. Verbal and non-verbal behaviour” (22_Manufacturing).</i>	27.3
Self awareness / Knowing what you want	Yorke and Knight, 2004; Saunders and Zuzel, 2010; Hillage and Pollard, 1998; Watts, 2006.	<i>“When you talk to the person you see that this person has a plan; this person knows what he/she wants. And you can interview other people and see that they do not have direction and they do not even know what they want to do with their lives... Graduates should have plans, they should also be aware about what they want...” (16_Recruitment Agency).</i>	13.6
Professionalism	Cable and Judge, 1996; Mat and Zabidi, 2010; Scott, 2003; Scott, G. and Yates, K.W. 2002; Nagarajan and Edwards, 2014.	<i>“We also have values like being professional, which is very applicable during auditing in the clients’ work environment. You have to make sure that in a given period of time you finish the given work. We also look at how people react to provoking situations... (8_Auditing firm)</i>	13.6
<b>D: Challenges working with graduates</b>			
<b>Hard skills</b>			
Gap between academic and work performance	Pauw et al. 2006; Barnard and Nel, 2009.	<i>“Some people are good at expressing themselves but when it comes to deliverables they are not good. Especially people with A’s (who we always run to) when we mix them with other people they do not perform</i>	54.5

		<i>well. Average students become active and proactive. The A students fail to demonstrate their As. This is why we have to mix the exercises and the interviews... ” (8_ Oil Trading company)</i>	
Written communication	Bridgstock, 2009; DEST, 2002; 2006; Hambur et al. 2002.	<i>“Another challenge is they need to have the skill for writing reports, how to construct sentences and have good grammar. The art of writing formal language in reports. We subject them to a lot of writing... ”(22_ Auditing firm). When they do it, I have to re-do it... ” (19_ Industry; 16_ Oil Trading Company)</i>	18.2
<b>Soft skills</b>			
Transferable skills	Mason et al. 2009; Paisey and Paisey, 2010; McQuaid and Lindsay, 2005.	<i>“They differ in terms of their ability to translate what they have learnt to a new context. The technical aspect of a subject matters, but they need to know how to transfer it to the real environment. I am not sure if this is about the teaching methodology or not but this is a challenge... ”(24_ Auditing firm)</i>	45.5
Communication skills	Gardner et al. 2005; DEST, 2006; Hambur, Rowe and Luc, 2002.	<i>“The students need to take initiative to acquire communication skills, they use informal communication. They do not know how to communicate, the problem is serious. For example, “I am reminding you about the job post I earlier requested in your firm” This is the way they communicate.... (17_ Mining sector)</i>	27.3
Higher expectations	Tan and French-Arnold, 2012; Barnard and Nel, 2009; Pauw et al. 2006.	<i>“Graduates have high expectations of becoming managers / supervisors (4_ Industry sector). They think that by coming to the office they are very big persons. Again they do not settle; they need to settle for a while to get experience before they move to another firm. They normally move from here to there. They should stay for 3-5 years at least to make an impact” (17_ Banking and Financial Institutions; 23_ Auditing firm).</i>	22.7
<b>E: Employers' views on the role of HEIs in enhancing skills</b>			
<b>Institutional factors</b>			
Collaboration among employers and HEIs	Weligamage, 2006; Frye et al. 2009	<i>“At University, education is not interactive, it is too theoretical and as a recommendation, there is a need for programmes that will link employers with university students during first and second year. Most of them lack practical training (35_ Oil Trading company).</i>	59.1
Curriculum changes	Macfarlane-Dick and Roy, 2006; Kolawole and Arikpo, 2008	<i>“We cannot run away from it. Turn around the curriculum so that communication skills are inculcated from lower levels of education. Entrepreneurship education should be made compulsory in all formal courses and mandatory for all students in university curriculum. The course can be narrowed down in form of courses that run in all year and should be taught to all fields /academic specialization. Entrepreneurship is a program by itself but it can be narrowed down. We need to put a mindset to the students that what is learnt in schools should be translated to the society when they get out of school. Subjects like research methods are taught to students and they apply them later” (20_ Telecoms)</i>	54.5
Improve the quality of teachers	Precision, 2007	<i>“To bring back our standards, we need to have only lecturers (with PhD) at the university to conduct teaching. We were not taught by masters’ graduates” (15_ School)</i>	40.9
Improvement in pedagogy	Precision, 2007; Moy, 1999	<i>“The teaching methodology, prepare students to search for information. I remember there was a Dr. who taught us principles of Management, and he could come with a very funny case. And we were supposed to link the same with a certain theory” (26_ Auditing firm)</i>	50.0

<b>ESDP activities</b>			
Develop exposure to students	Blackwell et al. 2001; Crebert et al. 2004; Holland, 2006; DEST, 2006.	<i>“Expose them to what is happening to the real world. Students can also practice on the online aptitude tests and see how best they can assess themselves and improve on their weaknesses” (20_ Banking and Financial Institutions). The university should tell students what the market needs, what employers want. There is a need for programme to orient students of what is expected from employers. This can be done at second year or below (34_ Auditing firms)</i>	95.5
Career development programs	Yorke and Knight, 2004; Andrews and Higson, 2008	<i>“Not sure from which program... but most disciplines need to offer career development basics / ethics for each discipline. eg. There can be career development for accountants. These can enable people to acquire basics on their profession. Career choices need also to be included in these career development plan” (34_ Oil Trading company)</i>	81.8
Develop graduates interviewing skills	Dipboye, 1994	<i>“The problem with recent graduates, they do not know what interview is, and how to conduct themselves during the interviews. The way they sit, they play with pen!” (13_ Manufacturing)</i>	45.5
Enhance students presentation skills	Cai and Shumilova, 2011; Andrews and Higson, 2008; Fallows and Stevens, 2000; Pittenger et al. 2004.	<i>“The seminars and presentations were very useful during our times. Apart from the technical part / theoretical part, you need to introduce something to expose your students. Eg ways to create confidence to say what someone knows, during interviews you see you can talk with a graduate with lower second and the way they talk you cannot tell if you are talking to a university graduate. They cannot explain themselves. During our times, when you are a first class graduate, it was really a first class as this could be easily translated to the way the person think, demonstrate in group discussion, easily seen in the university and in the world of work. The seminars give students self confidence, (27_ Banking and Financial Institution)</i>	
<b>Student initiatives</b>	Holland, 2006; DEST, 2006; Lorraine and Sewell, 2007; Bakar and Hanafi, 2007	<i>When I was searching for a job, I had a CD that focused on how to write a good CV, on how to appear for an interview..... I used to do unskilled jobs somewhere. I had to boost up my interview skills, this was my individual initiative. I wanted to do skilled jobs after graduates. Graduates need to know how to write proper a CV, what to research for and so forth (45_ Recruitment Agency)</i>	9.1



